

GOVERNMENT OF INDIA.

HOME DEPARTMENT.

EXECUTION OF DEEDS, CONTRACTS, &c., ON BEHALF OF THE SECRETARY OF STATE.

No. 1234.

*Extract from the Proceedings of the Government of India, in the Home Department (J udicial),— under date Simla, the 12th September 1883.*

Read the following papers relating to the execution of deeds, contracts, &c., on behalf of the Secretary of State:—

Home Department Resolution No. 1750, dated the 2nd November 1876.

Ditto ditto No. 681, dated the 31st May 1879

Read also—

Letter from the Government of Madras, No. 10, dated the 9th January 1883.

- „ to Director of Indian Marine, No. 161, dated the 31st January 1883.
- „ from Director of Indian Marine, No. 588, dated the 7th February 1883
- „ to Solicitor to the Government of India, No. 245, dated the 20th February 1883.
- „ from Solicitor to the Government of India, No. 386, dated the 28th March 1883.
- „ to Solicitor to the Government of India, No. 386, dated the 1st May 1883.
- „ from Solicitor to the Government of India, No. 624, dated the 25th May 1883.
- „ to Government of Madras, No. 892, dated the 20th June 1883
- „ from Government of Madras, No. 373, dated the 16th July 1883.

RESOLUTION.

In exercise of the power conferred by the thirty-third and thirty-fourth of Victoria, Cap. fifty-nine, section two, the Governor-General in Council is pleased to declare that the undermentioned classes of contracts referred to in the twenty-second and twenty-third of Victoria, Cap. forty-one, section two, may be executed as follows in the territories of the Government of India:—

Contracts for the engagement of crews of Indian } By the officers in command of such Government vessels, whether belonging to the Imperial } vessels.  
or to Local Government.

ORDER.—Ordered, that this Resolution be communicated to the Military (Marine) Department, and that it be published in the Supplement to the *Gazette of India*.

A. MACKENZIE,  
*Secretary to the Government of India.*



SUPPLEMENT TO

# The Gazette of India.

Nº 38.} CALCUTTA, SATURDAY, SEPTEMBER 22, 1883.

## OFFICIAL PAPERS.

A SUPPLEMENT to the GAZETTE OF INDIA will be published from time to time, containing such Official Papers and information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known.

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No Official Orders or Notifications, the publication of which in the GAZETTE OF INDIA is required by Law, or which it has been customary to publish in the CALCUTTA GAZETTE, will be included in the SUPPLEMENT. For such Orders and Notifications the body of the GAZETTE must be looked to.

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
IRRIGATION BRANCH.

**INVESTIGATION OPERATIONS IN BENGAL FOR THE OFFICIAL YEAR 1883-84.**

The New Centaur 1883.

G. F. E. S. NEILL, Major, M.S.C.,  
Under-Secy. to the Govt. of Bengal,  
P. W. Department.

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.

IRRIGATION OPERATIONS OF PASH KHARI IN THE PUNJAB FOR 1883-84 UP TO 31ST JULY 1884.

CANAL DIVISION.	WATER DISPERSED DURING JULY 1884. Gross Discharge at Barrage Gates.	NAVIGATION RETURN CANAL, Principal areas of Traffic.		LAND IRRIGATED (APPROXIMATE)		RAINFALL.		CHIEF CROPS (APPROXIMATE).		REMARKS.	
		Up.	Down.	Mts.	Avg.	Bonus Month.	Name	Area in acres.			
1st Division, Main Branch, Lower 2nd " " do., Lahore Branch 3rd " " do., Phased out of Escapes	4.9 4.8 3.6 3.5	Estimated full supply.	Actual average out.	{ 1,471.25 899.00 764.00 229.00	{ 1,078.6 899.00 764.00 229.00	Gurdaspur Amritsar Lahore . . . .	16,213 38,419 47,738	10.49 10.7 8.8 ... ... ... ...	Cotton Rice Sugar cane Others . . . .	21,658 17,452 8,192 63,188	On the Bari Doab Canal there is a decrease of 1,350 acres as compared with the corresponding period of the preceding year. The prospects of the crop continue to be very favorable. The usual rains having as a great measure failed, water is in great demand both for new and old sowings.
Total Bari Doab CANAL	...	...	...	3,078.3	3,063.25	...	...	101,370	...	101,370	
Corresponding period of last year	...	...	...	3,078.6	2,484.52	...	...	102,669	...	102,669	
2nd (Kareo) Division 1st (Delhi) do. Hansi do. Do. Pilla Head Phased out of Escapes	4.88 4.96 9.00 8.90 ...	Estimated full supply.	Actual average out.	{ 173 600 1,195 293 289	{ 2,546 2,546 850 870 ...	Umballa Karnal . . . . Delhi . . . . Rohtak . . . . Hissar . . . . Jhind . . . . Bhinder. Kalsia State . . . .	1,259 26,589 26,911 24,007 34,380 25,807 201 774	12.33 8.62 10.20 5.85 5.40 10.40 6.66 6.66	Cotton Rice Sugar cane Others . . . .	63,548 28,973 36,676 24,407 ...	The operations of the month on the Western Jumna Canal show an increase in area irrigated of 4,613 acres, and of 4,566 acres as compared with last year. There is an increase of 13,372 acres in the area of bottom, and a decrease of 15,865 acres in that of sargana, as compared with last year. The increase in the former is attributed to the scanty rainfall during the month, which is nearly 50 per cent. under the average.
Total Western JUMNA CANAL	...	...	...	2,646	2,413	...	...	631,372	...	152,000	
Corresponding period of last year	...	...	...	2,546	1,985	...	...	190,654	...	147,563	
3rd (Upper Sutlej) Division Lower Sutlej and Chenab Division Indus Canals Mussafir Canals	...	...	...	...	...	Lahore . . . . Montgomery . . . . Mooltan . . . . Dera Ghazi Khan . . . . Mussafirgarh . . . .	12,168 15,876 9.8 1.8 2.7 0.10 3.8 ...	Detail not obtainable for want of establishment.	...	On the Indus Canal there is a decrease of 6,633 acres as compared with last year, which is due to the short supply in the Canals owing to the low state of the rivers.	
Total Irrigation CANALS	...	...	...	...	...	...	...	424,304	...	424,304	
Corresponding period of last year	...	...	...	...	...	...	...	612,957	...	613,957	
Passable Canals, Grand Total	...	...	...	...	...	...	...	253,378	...	253,378	
Do. corresponding period of last year	...	...	...	...	...	...	...	250,172	...	250,172	

J. E. CATTON,  
Offy. Ass't Secy. to Govt. of Panjab, P. W. D., Irrigation Branch.

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. XXXIII of 1883.

**APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.**

Latest return received	Railways.	mean per week open	Receipts for week ending 10th August 1883		Receipts for week ending 25th August 1883		Total Receipts from 1st April to 20th August 1883		Total Receipts from 1st April to 26th August 1883		Total Increase in 1883-84	Total Decrease in 1883-84
			Total	Per mile open	Total	Per mile open	Total	Per mile open per week	Total	Per mile open per week		
			R	M	R	M	R	M	R	M		
<b>Guaranteed.</b>												
25th Aug. 1883	Eastern Bengal .	172	1,63,036	890	172	(a) 72,069	419	17,77,895	489	(a) 17,48,847	484	... 29,348
25th ditto .	Oudh and Rohilkund .	547	80,835	148	547	88,263	161	20,80,709	180	21,04,916	209	8,34,207 ...
1st Sept. 1883	Sind, Punjab & Delhi .	676	1,43,002	216	748	2,04,399	278	38,26,558	267	49,37,039	316	11,11,476 ...
1st ditto .	Madras . . .	861	1,61,837	176	861	1,18,188	197	28,23,241	161	27,24,901	161	... 1,98,240
1st ditto .	South Indian . . .	655	73,835	113	655	72,389	110	15,89,206	115	16,31,860	118	42,846 ..
1st ditto .	Great Indian Peninsula .	1,450	8,62,108	249	1,451	8,95,772	273	1,86,99,042	453	1,47,64,951	483	8,65,909 ..
1st ditto .	Bombay, Baroda and Central India . . .	461	1,22,643	266	461	1,58,606	341	43,11,122	442	49,62,691	502	5,51,569 ..
	TOTAL . . .	4,823	10,89,216	226	4,895	11,09,576	226	3,01,06,773	298	3,30,74,089	322	26,67,316 ..
<b>Stats.</b>												
1st Sept. 1883	East Indian . . .	1,507	6,51,184	432	1,509	8,00,808	531	1,79,51,161	561	2,10,92,427	666	\$1,41,288 ..
1st ditto .	Calcutta and South-Eastern . . .	33	4,456	135	56	5,800	95	79,553	121	1,20,610	108	41,068 ..
1st ditto .	Nalhati . . .	27	1,120	41	27	1,668	62	27,586	48	33,294	50	6,708 ..
1st ditto .	Northern Bengal . . .	280	35,838	154	239	37,350	156	7,45,038	152	8,21,642	163	76,604 ..
1st ditto .	Tirhoot . . .	75	15,448	206	166	16,491	99	2,64,320	153	3,42,187	99	77,867 ..
28th July 1883	Patna-Gaya . . .	67	6,295	110	...	(b)	(c) 1,66,997	160	(d) 1,42,616	147	...	18,842
1st Sept. 1883	Muttra-Hathras . . .	29	2,557	88	29	2,878	82	45,915	75	50,464	88	4,549 ..
1st ditto .	Cawnpore-Farrukhabad . . .	67	5,062	68	87	6,599	76	1,35,174	74	1,34,839	74	... 945
1st ditto .	Dildarnagar-Chunarpur . . .	12	524	44	12	616	61	19,276	78	20,555	82	1,279 ..
1st ditto .	Rajputana-Malwa . . .	1,117	1,50,089	134	1,117	2,05,950	184	42,69,311	180	50,30,163	214	7,70,852 ..
1st ditto .	Wardha Coal . . .	45	8,997	200	45	13,407	298	2,17,912	229	2,98,981	316	81,089 ..
1st ditto .	Nagpur & Chhattisgarh . . .	98	4,369	45	149	9,243	62	2,45,840	119	6,02,648	193	3,56,799 ..
1st ditto .	Rangoon and Irrawaddy Valley . . .	161	18,164	113	161	18,359	114	5,76,850	189	5,58,808	165	... 18,541
1st ditto .	Sindia . . .	75	4,672	62	75	5,005	67	1,28,686	81	1,27,151	81	... 1,535
1st ditto .	Punjab Northern . . .	409	47,994	117	421	60,943	145	12,03,819	142	12,88,141	145	70,829 ..
1st ditto .	Indus Valley and Kandahar . . .	660	64,725	97	660	1,07,326	163	16,73,896	120	31,67,484	229	14,93,788 ..
1st ditto .	Muttra-Achmera . . .	23	1,108	69	23	1,780	75	25,400	62	29,795	62	4,385 ..
1st ditto .	Kauma-Dhuria . . .	32	1,479	46	32	1,162	36	30,461	46	35,625	57	8,184 ..
1st ditto .	Rewari Jhansiorepore . . .	...	...	...	99	10,180	114	...	...	1,98,813	73	1,36,813 ..
	TOTAL . . .	3,170	37,1700	117	3,886	5,04,666	119	98,34,876	147	1,29,38,725	179	\$1,04,869 ..
<b>Assisted Company.</b>												
11th Aug. 1883	Bengal Central . . .	...	...	...	...	(b)	...	...	...	(e) 40,805	61	40,805 ..
<b>Native States.</b>												
25th Aug. 1883	Bhavnagar-Gondal . . .	194	11,906	59	183	9,875	51	8,94,086	97	4,41,837	109	43,753 ..
25th ditto .	Nizam's . . .	121	13,709	114	121	11,970	99	8,48,849	137	3,18,914	125	... 30,935
25th ditto .	Mysore . . .	86	5,499	64	86	6,021	68	1,15,184	63	1,06,780	69	... 8,348
1st Sept. 1883	Jodhpore . . .	19	320	17	19	660	85	(f) 1,550	9	14,780	37	13,180 ..
	TOTAL . . .	420	30,981	71	410	27,526	68	8,65,648	100	8,84,377	100	16,839 ..
	GRAND TOTAL . . .	9,919	21,43,384	216	10,212	24,41,676	239	5,90,58,461	281	6,80,2,818	314	89,69,869 ..
<b>GROSS ESTIMATED EXPENSES</b>												
	NET RECEIPT . . .	...	...	...	...	...	...	2,92,39,524	139	5,43,54,868	158	50,25,544 ..

(a) Exclusive of the Company's share of the earnings of the Bengal Central Railway (estimated for period subsequent to 11th August 1883).  
 (b) Return not received.  
 (c) Total receipts from 1st April to 26th July 1883.

(d) Total receipts from 1st April to 28th July 1883.  
 (e) Total receipts from 1st April to 11th August 1883.  
 (f) Total receipts from 26th June to 26th August 1883.

R. A. SARGEANT, Major, R.E.

Officer-in-Charge

SIMLA.

The 15th September 1883.

SUPPLEMENT TO THE GAZETTE OF INDIA, SEPTEMBER 22, 1883. 1583

GOVERNMENT OF INDIA.

LEGISLATIVE DEPARTMENT.

ABSTRACT OF THE PROCEEDINGS OF THE COUNCIL OF THE GOVERNOR  
GENERAL OF INDIA, ASSEMBLED FOR THE PURPOSE OF MAKING  
LAWS AND REGULATIONS UNDER THE PROVISIONS OF THE  
ACT OF PARLIAMENT 24 & 25 VIC., CAP. 67.

The Council met at Government House, Simla, on Wednesday, the 12th September, 1883.

PRESENT:

His Excellency the Viceroy and Governor General of India, K.G., G.M.S.I.  
G.M.I.E., *presiding.*  
His Honour the Lieutenant-Governor of the Panjáb, K.C.S.I., C.I.E.  
His Excellency the Commander-in-Chief, G.C.B., C.I.E.  
Lieutenant-General the Hon'ble T. F. Wilson, C.B., C.I.E.  
The Hon'ble C. P. Ilbert, C.I.E.  
The Hon'ble Sir S. C. Bayley, K.C.S.I., C.I.E.  
The Hon'ble T. C. Hope, C.S.I., C.I.E.  
The Hon'ble W. W. Hunter, M.L.D., C.I.E.  
The Hon'ble J. W. Quinton.  
The Hon'ble D. G. Barkley

MILITAN DISTRICT LAWS BILL.

The Hon'ble Mr. Ilbert moved that the Bill to declare the law in force, in certain lands which have been or hereafter may be ceded by the Bahawalpur State for occupation by the Indus Valley State Railway be taken into consideration.

The Motion was put and agreed to.

The Hon'ble Mr. Ilbert also moved that the Bill be passed.

The Motion was put and agreed to

NORTH-WESTERN PROVINCES AND OUDH LOCAL BOARDS BILL.

The Hon'ble Mr. Quinton moved that the Report of the Select Committee on the Bill to provide for the constitution of Local Boards in the North-Western Provinces and Oudh be taken into consideration. He said:—

"MY LORD, in moving for leave to introduce this Bill in May last, I explained to the Council that it embodied the views of the Local Government as to the degree to which the principles of local self-government already recognised in the North-Western Provinces and Oudh should be extended, as to the mode in which the existing machinery of district committees should be utilized for that purpose, and as to the steps considered necessary to supplement that machinery in order to carry out the object in view. I showed that the proposals of Sir Alfred Lyall were the result of careful deliberation and of consultation with all persons likely to be able to give an opinion of value on the subject, and that those proposals had received the assent of the Government of India in the Executive Department.

"The Bill, after its introduction, was published in the usual way for the information of the public, and was referred back to the Local Government for further opinion on its details. Divisional and district officers of the united provinces were again consulted, a committee was again assembled at Naini Tal, presided over by the senior member of the Board of Revenue, and having as its members one Commissioner from the North-Western Provinces, one from Oudh, three officers of the Secretariat, of whom two had not long ago been in

charge of districts, and four Native gentlemen, including a member of this Council, the Hon'ble Rájá Siva Prásád.

"The opinions of the Local Government and of the officers consulted by it, the report of the Naini Tal Committee, and the criticisms of the English and Vernacular newspapers which discussed the measure, have been carefully weighed by the Select Committee; alterations, which it is hoped are amendments, have been made in the Bill in accordance with many of the suggestions emanating from those different sources; and I have to ask the Council to pass it into law to-day, after taking our report into consideration.

"I do not propose to detain the Council by discussing, or even enumerating, all the alterations which we have made. They will be found set forth at length in our report, but I shall confine myself to explaining a few of the more important changes.

"The Bill as introduced made no reference to towns in the united provinces in which Act XX of 1856 is in force. As the Council is doubtless aware, that Act provides for the appointment and maintenance of police chaukidárs in towns other than agricultural villages. In the North-Western Provinces and Oudh, where small towns are numerous, many have been brought under the Act, being too small as yet to constitute municipalities. The cost of watchmen, and in some places of sweepers for conservancy purposes, is raised by an assessment on persons or property within a limited maximum. The assessment is made by a pancháyat, and in no cases does it exceed double the charge for watchmen; in many it falls short of that amount. The surplus, when there is any, is spent in petty improvements in the town—generally in making or repairing roads or surface-drains—by the Magistrate, who is directed to consult the wishes of the rate-payers. Sir Alfred Lyall considers that these embryo municipalities should be left as they are for the present outside the jurisdiction of district boards, a discretionary authority being given to the Local Government to treat exceptionally any case that may seem to call for such treatment.

"Section 3 of the Bill as amended accordingly excludes from sub-districts formed under that section, unless the Local Government otherwise directs, the portions of the district in which Act XX of 1856 is in force.

"We have made a change in the mode of appointing nominated members of district boards in those districts where the central board will consist only of delegates from the local boards. Instead of leaving such members to be chosen by the local boards, which we considered might give rise to complications and difficulty in maintaining the prescribed proportion of nominated and elected members on the district board, we have, in section 6, given to the Local Government the power of appointing the proper number of nominated members to the district boards from among the nominated members of the local boards.

"On the mode of appointing chairmen of local and district boards, a constitutional question of great importance, I dwelt at some length on the occasion to which I have before alluded, and need only now say that no change has been made on this point, and that section 14 has been very carefully drawn, so as to give effect to the proposals of Sir Alfred Lyall.

"The Bill as introduced limited the term of office of chairmen of local boards to one year, in accordance with the suggestion of the Local Government. It was believed that this would give boards the opportunity within a reasonable time of ridding themselves of chairmen who turned out to be inefficient, but the Lieutenant-Governor and many of the officers consulted, on reconsideration of the question, have urged that the term is too short; and the Select Committee agrees with His Honour that annual elections of chairmen might keep agitation constantly alive, might deter competent men from accepting office, and might tend to prevent the acquisition of that knowledge of the rules and of business which it is essential that a chairman should possess. The preponderance of argument turned the scale in favour of the later opinion, and sections 13 and 16 accordingly provide that the term of office of an elected chairman shall coincide with that of his term of office as a member of the board.

"For chairmen who are not elected the term of office will be fixed by the Local Government, but is in no case to exceed three years, the term of office for

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members. District boards will thus be able at reasonable intervals to review their determination not to elect their own chairmen.

"Questions may arise occasionally in which residents of military cantonments and district committees are jointly interested, and on which it is well that each party should have an opportunity of hearing the views of the other and stating its own. With this object, section 27 enables district boards to form a joint committee with the cantonment authorities whoever they may be. We have not specified cantonment committees, of which no mention is to be found in Act III of 1880, the latest enactment which amends the law relating to cantonments; but it will rest with the military authorities to determine in what form the residents of cantonments shall be represented in the joint committees.

"Some of the local officers consulted took strong exception to the clause of section 21 which enabled district boards to establish and maintain relief-works in times of scarcity or famine, urging in effect that undivided responsibility was essential to the successful conduct of a famine-campaign, and that this could not be expected from district boards. They appear to have overlooked, or to have thought insufficient, the qualification in the first sentence of section 21, which applies to all that follows, 'subject to such exceptions and conditions as the Local Government may from time to time make and impose.' There is no doubt of the general truth of the proposition on which the objection is based, where a widespread and severe famine has to be dealt with, but periods of scarcity frequently occur which do not require the universal application of official agency; and during such periods, or even occasionally in more serious famines, the services of the boards may often be utilised with advantage in administering relief-works of a subsidiary character. To meet such cases, the provision was inserted. It was intended by it not to empower the Local Government to divest itself of the responsibility for famine-administration, but to enlarge the armoury of weapons at the disposal of the Government for employment against the common enemy. The clause has been re-drafted so as to make this clear.

"In the Statement of Objects and Reasons, and in my speech when I asked leave to introduce this Bill, it was explained that the measure proposed to extend the financial independence of local bodies; and this object was secured by the provision which vested boards with the district fund. A suggestion of the Naini Tal Committee, supported by the Lieutenant-Governor, that 'unexpended balances of yearly income should be credited to the boards subject to such conditions as the Lieutenant-Governor might impose,' was carefully considered by the Select Committee, which felt compelled, for the reasons given in the Report, to reject it. Such a condition appeared to the Select Committee to be fatal to that financial independence which it is the object of the Bill to confer on every district board. Section 13 of Act III of 1878 and section 12 of IV of 1878, which left unexpended balances of the allotments at the disposal of the Lieutenant-Governor and Chief Commissioner, have been accordingly repealed and not re-enacted.

"The sections respecting the appointment of officers and servants have been recast. As regards the appointment of the secretary, no substantial change has been made; but we have rendered subject to rules made by the Lieutenant-Governor appointments to offices requiring professional skill. The supply of candidates for professional employments is limited, and the boards to be constituted under this Bill will not, at least for some time to come, be well adapted to judge without guidance of professional qualifications and scientific acquirements, whereas the selection of competent professional servants is of the utmost importance to the success of their administration.

"Two sections (36 and 37) have been added respecting the grants by boards to their servants of gratuities, pensions and leave-allowances. Here also it was felt that boards should be enabled to resist the pressure to which they will no doubt be largely subjected, and that the law should strengthen their hands in refusing to burden the rate-payers with extravagant charges.

"We have empowered the Local Government (clause (8), section 47) to make rules for the guidance of the boards in conducting litigation, but have

struck out altogether the section of the Bill as introduced which conferred upon district boards and their officers and servants the privileges which the Secretary of State for India or a public officer has under Chapter XXVII of the Code of Civil Procedure. As stated in the Report, the tendency of recent legislation in England has been to remove special protection in the case of legal proceedings against public bodies, and, except that boards might possibly be placed at a disadvantage in the conduct of their legal business by the delay necessitated by the reference to Government under the rules, there appeared no good reason for continuing such protection to the boards for which we are now legislating. Such delay would, we think, be always accepted by the Courts as a good and sufficient reason for granting a postponement under the ordinary provisions of the Code.

"It also appeared to us that a provision for special notice of an intention to institute a suit against a board was unneeded for. Cases will rarely, if ever, occur in which persons thinking themselves aggrieved will not apply for redress to the boards before bringing them into a Court of law; and plaintiffs who fail to make such an application would doubtless be made, or, probably my hon'ble friend of the Chief Court will agree with me, ought to be made, to pay for their laches by being muled in the costs of the suit."

"I also propose to ask the Council to pass an amendment to section 40 of the Bill. Section 17 gives the Local Government the very necessary power of making rules as to the manner in which the accounts of the boards shall be audited; but section 40, which specifies and limits the charges and expenses to which the funds of the board can be legally applied, makes no provision for payment of the expense of auditing those accounts, so that the Local Government has the power of making rules for the performance of a duty the cost of which the board is under no obligation to pay.

"Section 47, clause (12), enables the Local Government to make rules as to the language of the board. This power was originally given to the district board, but on further consideration we adopted the view of the Lieutenant-Governor that, if this matter were left to the decision of the members, much controversy might be the result, and in some districts business might be seriously and uselessly retarded. My hon'ble friend the President of the Education Commission will, I am sure, bear me out in saying that the use of Hindi or Urdu as an official language has in many places become a burning question, and that opposite sides are frequently taken by Hindus and Muhammadans more from a desire to secure a badge of race-ascendancy than from considerations of the public convenience.

"The Bill, my Lord, will thus confer on the people of the North-Western Provinces and Oudh a substantial, though not an unsafe, measure of local self-government: it is a move, and a decided, but not a rapid move, in that direction. For a somewhat centralized system of administration of local funds, it establishes local bodies appointed mainly by such a form of election as is considered by those best acquainted with the provinces most suitable to their present condition, presided over by chairmen of their own choice, charged with the performance of definite duties, vested with the control of their own funds, and possessed of the local knowledge and local interest which it is the tendency of centralised departments in their zeal for improvement sometimes arbitrarily to override. It is not to be expected that large results will at once be apparent from the passing of the Act, or that a population composed chiefly of peasants and petty landholders, engaged in a hard struggle for existence, of whom not quite 6 per centum have acquired the arts of reading and writing, will suddenly manifest a great amount of public spirit, will display an unselfish interest in commercial affairs and develop a conspicuous genius for administration; but we may reasonably hope that in these respects a promising start will be made, and a steady rate of progress gradually attained, under the guidance of a body of divisional and district officers second to none in India in sympathy with, and knowledge of, the agricultural classes, controlled by a Lieutenant-Governor who has so thoroughly familiarised himself with the ideas and principles underlying the structure of Indian society."

The Hon'ble MR. HUNTER said :—“ My Lord, after the exhaustive statement made by my Hon'ble friend in charge of the Bill, it is not needful that I should enter into further details connected with this measure. But a question arose in the Select Committee with regard to which it is expedient that, by your Excellency's permission, I should ask my Hon'ble friend for a fuller explanation in Council. The Bill provides, among other things, for the Local Government making over ‘the control and administration’ of schools to the Local Boards. No definition is given of the class of schools thus to be transferred, but they are placed in a list ending with the words ‘and other public institutions.’ It may therefore be inferred that the schools to be placed under Local Boards are of the nature of State schools. But perhaps the Hon'ble Member in charge of the Bill will, at the close of this debate, make it clear that the schools to be handed over ‘to the control and administration’ of the Local Boards, at the discretion of the Local Government, are not intended to include aided schools, or schools managed by European or Native associations or by similar bodies. It would be particularly unfortunate at the present juncture, if an unfounded surmise should get abroad that Government intends to interfere in any way with private enterprise in education. From what passed in the Select Committee, I am aware that there is no such intention; and I have a perfect confidence that the Local Government will prevent any injustice by the rules to be framed under this Act. I also agree that it is inexpedient to attempt a definition of the schools now to be transferred to Local Boards, as the whole question of popular education and of educational legislation is shortly to come before your Excellency's Government. Nor do I ask for any pledge in regard to schools which the Boards may themselves establish. But it seems desirable that it should be made clear to managers of schools, and to European or Native associations engaged in school work, that the present Bill will not infringe on their private rights. I shall, therefore, with your Excellency's permission, ask my Hon'ble friend for an assurance that nothing in this Bill is intended to interfere with the powers at present exercised by individual managers, or by public associations, over aided or other non-Government schools; or to transfer their management to ‘the control and administration’ of the Local Boards.

“ Two objections of a more general character have been brought against the control and administration of those Boards. On the one hand, it has been urged that the powers entrusted to the Boards go too far in the direction of local self-government; on the other hand, it is complained that they do not go far enough. As an independent member of the Council, not pledged by responsibilities to your Lordship's Executive Government, I desire to state my own opinion in regard to these two categories of complaint. The first class of critics seem to suppose that this and similar measures now before the Council, have been modelled upon institutions, and are built up on theories, foreign to India. But if there was ever a series of measures free from the charge of *doctrinaire* legislation, it is the series to which the present Bill belongs. Every one of that series has been based upon existing institutions, and in each one of them the development of those institutions is strictly carried out on lines laid down by the District Officers and the Local Government. The Bill for the Central Provinces starts from the village school committees, characteristic of that part of India, and links them through Local Boards with the District Councils. In Burma, such rural mechanism is comparatively wanting, and the Burmese Bill now before the Council, practically confines its scope to municipalities or townships and the areas attached. In the Panjab, different tracts vary widely in their circumstances. The Panjab Bill refrains, therefore, from any attempt to bring that Province under uniform provisions, and it allows the largest liberty to the Local Government in regard to the rules by which the system will be worked in each district. The North-Western Provinces form a more homogeneous territory. But, while the provisions of the present Bill are consequently made applicable to them as a whole, these provisions are based upon local experience and local advice collected from the separate Districts. It embodies the views arrived at by the North-Western Government upon the recommendations of a Committee of its own District Officers. It has been carried through this Council by a gentleman of exceptional experience in

the management of North-Western Districts. At each stage of the Bill, the opinion of the Lieutenant-governor of the North-Western Provinces has been sought; and to that opinion more than one member of the Select Committee has, on particular clauses, yielded his own. Whatever may be the defects or the merits of this Bill, they are not the merits or defects of *doctrinaire* legislation.

"The Bill accepts the existing system of District Boards in the North-Western Provinces, and provides them with Local Boards as agents acting under them. But, in thus giving hands to the District Board with which to do its work, we are told that the Bill has deprived the District Board of its head. The meaning of this is, that the Chairman of the District Board will no longer be necessarily an official appointed by Government, but may, under certain conditions, be elected by the Board itself. Those conditions, however, afford ample security against evil results from so moderate a change. In the first place, a District Board must, at a meeting of not less than three-fourths of its whole members, determine whether the Chairman shall be elected by the Board, or be appointed by the Local Government. The condition requiring an attendance of three-fourths of the whole members, although an effective safeguard against hasty or partial elections, seemed, to me at any rate, to be unduly stringent. But, after the careful consideration given to this question by the Local Government, and as local experience shows that this safeguard can be practically carried out in the North-Western Districts, I think that no true friend of self-government should withhold his assent from a condition which those best acquainted with the North-West believe to be requisite for the successful working of self-government in those Provinces. The second safeguard consists in the circumstance that, when a Chairman has been elected, the approval of the person so selected rests with the Local Government; and, in the event of an unsuitable election, the Local Government shall appoint as Chairman such person as it thinks fit. The third safeguard resides in the right reserved to Government of nominating a portion of the members of the Local Board, not exceeding one fourth of the whole. The fourth safeguard is to be found in the provision that every resolution passed by a District Board shall, within ten days, be forwarded to the Magistrate of the District. A fifth safeguard rests in the efficient but well-guarded powers of inspection, suspension and control vested in the Commissioner of the Division, and eventually in the Local Government. I do not think that any one can carefully read this Bill without the conviction that its provisions represent the best results of local experience, and that they take ample security against any dangers which might arise from the increased responsibilities now assigned to the District Boards.

"Those responsibilities are of a very real character. The list of duties made over to the District Boards include much of the daily work of rural administration. The evils of the undivided responsibility borne by Indian officials, have long been recognised, and have received fresh illustration in the most able of popular accounts of India by Mr. J. S. Cotton, which has just reached this country. But, in regard to the duties and powers of District Boards, this Bill has been based on the past experience of District officers in the North-West, not upon theories or first principles. The construction and maintenance of public roads, wells, waterworks and certain local buildings; the management and inspection of schools, hospitals, markets, cattle-pounds, staging-houses and public ferries; the regulation of encamping grounds for travellers; the licensing of stage-coaches; the conduct of local works likely to promote the public health, comfort or convenience; and the relief of the people in time of scarcity or famine, are among the duties entrusted by the Bill to the District Boards, under rules and conditions to be laid down by the Local Government. Some of these duties have already been conducted by District Boards; but hereafter the District Boards will have an inducement to efficiency and economy which they did not possess before. For, any balance unexpended at the end of the year from the sums allotted to them by the Local Government, will no longer be swept back into the Provincial Treasury. Such balances will form a fund to enable the District Board still more efficiently to carry out its duties; and the more economically it performs its work each year, the better will be its financial position at the beginning of the next.

"With the responsibility for many branches of the rural administration, will come, I believe, an increased appreciation of the difficulty of the task. The British Government has, during the past twenty years, accepted responsibilities for the continuous welfare of its subjects which no previous Government of India admitted. The State now interposes its efforts between the calamities of nature and the people. When it fails in its almost insuperable task, the people are apt to blame, not the calamities of nature, but the efforts of the State. No one has so clearly described the result of this condition of things as the present Lieutenant-Governor of the North-Western Provinces. 'Cholera, famines and great sea-inundations,' writes Sir Alfred Lyall in one of his brilliant essays, 'when they are not made the text of invectives against the British Government, do at least, in some confused way, bring upon it great discredit; not apparently from the idea that the gods are angry with the Government, but upon the dim feeling that the Government has undertaken the gods' business and is breaking down.' The best remedy for such a state of things is to make the people themselves share the difficulty of the task; and I believe that the Bill to be passed to-day for the territories over which Sir Alfred Lyall presides, is the most important legislative step yet taken in that direction.

"We have lately heard much of the great influence exercised by the small but highly educated Native communities in the towns. It is complained that that influence is altogether disproportionate to the number of the persons who wield it, or to the pecuniary stake which they have in the country. Without pronouncing as to the justice of this view, I think that the present measure affords a new and valuable guarantee against the evil complained of. For this Bill creates effective mouthpieces for public opinion outside the great towns, such as the rural population never possessed before. Public opinion exists in the village as it does in the town; but under previous Indian Governments the village was separated by wide untraversed tracts from the ruler. This separation has stamped itself in the language of the people. The terms for the village and its internal life are almost everywhere taken from the vernacular Indian speech; but beyond the village stretched the Persian *zillah* or District, and beyond the *zillah* the Persian *sabak* or Province, whose capital formed the residence of the remote Government or Persian *sarkar*. My Hon'ble friend in charge of the Bill, has mentioned that the language to be used by the Local Boards is a burning question at the present day; that is to say, whether the language is to be the native Hindi of India, or the naturalised Urdu derived from its former foreign rulers. He has dealt, I think, very wisely with that question. But the Bill which he has to-day conducted to a successful issue, goes to the root of the evil which bequeathed to us this and similar difficulties in the rural administration. Indian history discloses scarcely anything of the nature of a political institution between the village and the Central Government; and after the downfall of each successive dynasty the village alone survives, raising its head above the waste of anarchy like the Lower Bengal handts in time of flood. This absence of cohesive institutions has always been a source of political weakness in India. The present Bill, with the series of measures to which it belongs, takes the village, the indestructible unit of the Indian social system, and links it to the Central Government. My Hon'ble friend has truly said that the progress of local self-government must at first be slow. But the progress, such as it is, will be steadily in the right direction. The peasant landholders and the village heads will be represented on the Local Board. The Local Boards will, either directly or by election, constitute the District Board; and the District Boards will be in immediate communication with the responsible representatives of the Government. The old indestructible element of organization in India, the village, will no longer stand out as a solitary unit, but will be incorporated into a well-knit system of rural administration.

"I think the local Government of the North-Western Provinces, as well as the Hon'ble Member in charge of the Bill, is to be congratulated on the passing of this measure. I believe it to be an honest effort to carry out the policy of local self-government laid down in your Excellency's Resolutions, and to

carry out that policy with due safeguards against the risks which must attend all administrative changes in India."

His Honour the LIEUTENANT GOVERNOR said :—" My Lord, I was not aware that any difficulty had arisen in connection with those provisions of section 21 of the Bill which refer to the control and management of schools made over to local bodies. No mention of any such difficulty has been made in the report of the Select Committee, and therefore I have not come prepared to discuss the principle at any length. Nor do I clearly understand what is the particular difficulty in respect to aided schools to which my hon'ble colleague Mr. Hunter has referred. Perhaps when the Hon'ble Member in charge of the Bill comes to answer the appeal which has been made to him, some further light may be thrown upon the subject. But if it is asked that a pledge be given that the clause in the Bill shall apply only to Government schools and in no respect to aided schools,—that is to say, that grants-in-aid are to be given only from provincial treasuries and not from local funds, that all examinations in aided schools are to be conducted by provincial and not local establishments, and that local boards and committees are to have no concern with aided schools,—I sincerely trust no such pledge will be given. As far as the Panjab is concerned, I distinctly contemplate, under the provisions of the Panjab Bill, now before a Select Committee of this Council, to give certain powers to local boards in connection with aided schools, as well as Government schools. In regard to the Bill now before us, I think that the clause in the first part of section 21 which makes the provisions of the section subject 'to such exceptions and conditions as the Local Government may, from time to time, impose,' provides an ample check against any arbitrary or unwise interference with aided schools. Altogether, the matter is one which should be left to the discretion of the Local Government."

The Hon'ble SIR STEPHEN BAYLEY said :—" My Lord, I cannot anticipate the answer which my hon'ble friend Mr. Quinton will give to the question asked him by the Hon'ble Mr. Hunter in regard to the control and management of aided schools, but I am of opinion that it is undesirable that any definite pledge should be given in their case. It seems to me that there is a principle underlying the question which may enable the Local Government to come to a decision in the matter; and that, in regard to schools for the higher education, where these schools are in the main private institutions and can only be called public in consideration of the grants-in-aid they receive, they would hardly come under the wording of the section. Where, for instance, private persons or associations have invested time and money in starting a school on the faith of a system of grants-in-aid administered by Government, there is ~~a~~ *prima facie* reason for not making over such schools to local bodies without the consent of those persons and associations. I think that might be the guiding principle, but at the same time much must be left to the discretion of Local Governments, and it would be unsafe to give anything like a definite pledge."

The Hon'ble Mr. QUINTON said :—" The question raised by my hon'ble friend Mr. Hunter is no doubt one reasonably suggested by the wording of section 21 of the Bill, and, as it also arises in the Municipal Bill, I shall deal with both at the same time.

" It was found impossible to lay down by law a precise classification of the schools which should be placed under the control and administration of the boards, and the decision was accordingly left to the Local Government, while we indicated by a general qualification in the section the principles on which such decision should be based.

" The section runs—'Every district board shall, so far as the funds at its disposal will permit, but subject to such exceptions and conditions as the Local Government may, from time to time, make and impose, provide, among other things, for the establishment, management, maintenance and visiting of schools.'

" It was not the intention that boards should have anything to do with schools other than those maintained or aided from the district or municipal funds.

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"Schools which in future accept grants-in-aid from boards will of course be bound by the conditions on which such grants are given, and must make their own terms.

"Schools which at present receive grants-in-aid from Provincial funds are in a different position. Government may find it convenient to transfer the charges for such grants-in-aid to the funds of the boards; but, as the schools were often established on the faith of the continuance of the grants-in-aid by Government, as stated by my hon'ble friend Sir Steuart Bayley, the latter would doubtless, before taking action, we presume, consult the wishes of the managers of the institutions, and, if they objected to being rendered subject to the control of the boards, would probably either not make the transfer at all, or attach to it such 'exceptions and conditions' as would satisfy the reasonable objections of the proprietors or managers of the schools. I cannot give any assurance beyond this. We have left the matter to the Local Governments with every confidence that the discretion will not be abused."

The Hon'ble Mr. ILBERT said:—"My Lord, we are much indebted to our hon'ble friend Mr. Quinton for the great care and skill with which he has conducted this measure through Council, and for the fulness of his explanations. It clearly appears from what he has said that, with respect both to the details and to the principles of this measure, we have adhered as closely as possible to the views and suggestions expressed by the Local Government; and I have every reason to believe that this measure will lay down the lines of a useful and effective system of local self-government. To what has been already said, I need only add a very few words, and those will be in explanation of the financial clauses of the Bill. In defining the funds and sources of income to be placed at the disposal of local boards, we have endeavoured to keep in view three considerations. First, for the purpose of securing the requisite amount of elasticity in the adjustment of provincial and local revenue and expenditure, we have found it necessary to reserve to the Local Government a certain amount of discretion with regard to the funds to be allotted. We have done this by providing in section 35 of the Bill that the arrangements specified in that section are to be subject to such conditions and exceptions as may be made and imposed by the Local Government. Secondly, it has been thought desirable to give the Local Government, by express words, the power of reserving from the local rates fund such amounts as may be necessary for expenditure on matters of the district which it may be necessary to place under provincial as distinguished from local administration. We have provided for this by a sub-section, which will be found in section 56 of the Bill, amending the Local Rates Act of 1878. Whilst conferring these discretionary powers, we hope and believe that they will be exercised in accordance with fixed rules, and in such a manner as not to cripple the independence and responsibility we intend to give to local bodies. In connection with this point, I have to express my entire concurrence in the principle of leaving unexpended balances in the hands of those bodies. Lastly, it is necessary that local bodies should pay the expenses of such services as may be rendered to them by the officers of Provincial Departments, and we have accordingly charged the district fund with the payment of such amount, as may be held to be equitably due in return for such services."

His Excellency THE PRESIDENT said:—"The remarks which have been made by the hon'ble members on this and previous occasions at the several stages of the Bill have so fully explained the objects and purposes of this and the sister measure which will be passed, I trust, in a few minutes, and I myself have had so many occasions of expressing my views on the question of local self-government in India, that I need not now occupy the time of the Council. But I cannot let those two Bills pass without expressing my hope that they will prove to be measures calculated to make a substantial advance in the development of local self-government; and it is a great satisfaction to me that these Bills should be passed by this Council during the time I have the honour to preside over it."

The Motion was put and agreed to.

The Hon'ble Mr. QUINTON also moved that, in section 40, sub-section (1), after the words "payment of" the following be inserted, namely:—"the expenses incurred in auditing the accounts of the district and local boards, and".

The Motion was put and agreed to.

The Hon'ble Mr. QUINTON also moved that the Bill as amended be passed.

The Motion was put and agreed to.

#### **NORTH-WESTERN PROVINCES AND OUDH MUNICIPALITIES BILL.**

The Hon'ble Mr. QUINTON also moved that the Report of the Select Committee on the Bill to make better provision for the organization and administration of Municipalities in the North-Western Provinces and Oudh be taken into consideration. He said:—

"The printed report of the Select Committee enumerates at length the changes, except amendments in matters of minor detail, which have been made in the Bill as introduced, and gives briefly the reasons for each. It also states that, in making those alterations, the Select Committee was guided by the opinions of the local authorities, which in the case of a Bill of this nature appeared to be specially deserving of attention.

"The changes as regards terms of office of chairman of the board, the appointment of joint committees with the cantonment authorities, the language of the board and the appointment of officers and servants, the grant of pensions, gratuities and leave-allowances and special privileges in conducting litigation, correspond with those made in the Local Boards Bill; and, as I have dwelt on the reasons for these changes in the remarks I have just made on that measure; I need not weary the Council by going over the same ground.

"Towns in which Act XX of 1856 is in force were not alluded to in the Bill as introduced, but, as the Local Government is enabled to apply the Municipalities Act when passed to any town or group of towns, we have provided that, when a town in which Act XX of 1856 is in force is brought under the Municipalities Act, the former enactment shall cease to have effect therein, and every panchayat constituted under it for the local area in which such town is situated shall cease to exist. The maintenance of a proper establishment for watch and ward will then become the duty of the municipal board.

"The maximum term of office of members of the board was originally fixed at two years, but the local authorities and Native gentlemen consulted considered this period too short, especially where the system of retirement by rotation is in operation—a system which has worked satisfactorily and is well understood. In deference to these views, we have extended the period to three years.

"The Bill as introduced practically allowed a board to elect as its chairman any person whatever: 'one of its own members or some other person' was the language used. Exception was taken to this as throwing open the chairmanship in a manner inconsistent with ordinary rule and practice elsewhere, and as allowing a person who had not stood for election, or who, having stood, had not been elected, to be brought in to preside over the board's deliberations as chairman. It was urged that, although the power might occasionally be used to bring in a man of peculiar ability or aptitude, the probability was much stronger that it might be misused for purposes of private interest, and that it might foster dissension, especially if a candidate who had been defeated at the election for board membership were nominated.

"The Select Committee has given full weight to these considerations; but, looking to the fact that *all* elections are subject to the approval of the Local Government, has decided not to narrow the field from which chairmen may be chosen, except by the single restriction that they must possess the qualifications which would enable them to stand for election as members of the boards. These qualifications will be prescribed by rules made by the Local Government under section 9 of the Bill. This will prevent the election of an outsider who has no interest in the municipality, while the Local Government will be able

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by withholding its approval, to cancel the election to the office of a person obviously improper or unfit.

"To prevent municipal administration coming to a standstill by the neglect of a board to fill up the chairmanship within a reasonable time after the occurrence of a vacancy, we have enabled the Local Government to appoint a chairman when the office is allowed to remain vacant for three months. The control of the ordinary business of the committee will rest in a great degree with the chairman, and inconvenience to the public would result from its being interrupted. I shall leave to my hon'ble and learned friend Mr. Ilbert to explain the grounds on which we have altered the sections giving power to the board to make rules regarding nuisances. The principle involved is one of general application, and will doubtless regulate litigation on the point in other provinces than those to which this Bill relates. No power was given to the Local Government in the Bill as introduced to alter the limits of a municipality. The law now in force, Act XV of 1873, section 5, does enable the Local Government to effect this by notification, and on the suggestion of the Government of the North-Western Provinces and Oudh we have inserted a section (71) to make provision for future cases in which it may be necessary to alter municipal limits.

"The object of this Bill, my Lord, like that of the Bill just passed, is to develop in the direction of local self-government institutions already in existence; and I may say that the institutions to which it applies have attained a much more advanced stage of development, and call for much less radical changes, than those with which we were dealing earlier in the day.

"Some degree of local self-government in municipal affairs existed in the North-Western Provinces since 1850, when Act XX of that year enabled residents of towns to apply for the extension of the Act to the town in which they lived, and to form committees for the purpose of taxing themselves and administering the funds raised by such taxation.

"As to Oudh, a Municipal Act for Lucknow and other towns to which it might be extended by the Governor General in Council was passed in 1864; and the Governor General in Council was subsequently empowered to extend to any towns in Oudh the Punjab Municipal Act of 1867. In 1868, a new Municipal Act was passed for the North-Western Provinces, and was keenly debated in this Council; the opposition, headed by Sir H. Durant and Sir W. Mansfield, being opposed to granting to the Lieutenant-Governor power to apply the Act to any town irrespective of the wishes of the inhabitants and to the preponderance on the committee of official members, and the influence which it was likely they would exercise.

"Finally, in 1873, a fresh Act, No. XV of that year, being the law now in force, was passed for the North-Western Provinces and Oudh in order to provide for municipalities in Oudh governed by the Punjab Municipal Act, then about to expire, and to make alterations and amendments in some small matters, to which experience had shown to be required, to the North-Western Provinces Act, regarding which the mover, Mr. (now Sir) Arthur Hobhouse, stated his belief that it had worked in a very satisfactory manner. By this Act all municipalities in both provinces are now regulated, and a brief account of its operation, taken from the printed Administration Report of the North-Western Provinces and Oudh for the year ending on the 31st of March, 1882, may interest the Council, as showing the stage of advancement which municipal institutions have there reached.

"There were in that year in the united provinces 109 municipalities, with a population slightly in excess of 3,000,000. Members were appointed in some places by election only, in others by nomination only, and in others again by election and nomination combined. There were 435 *ex officio* members, against 1,022 nominated or chosen by election. An income of Rs. 23,30,837 was raised by taxation, of which 88 per cent was derived from octroi-duties, and the average incidence of taxation per head was 12 annas.

"The first charge on the net income was for police, of which an establishment consisting of 2,802 constabulary and 4,006 non-constabulary

Forces was entertained. I may say here that, by the present Bill, municipalities will be entirely relieved from the cost of the former, under the obligation of devoting the funds thereby set free to purposes of education, medical relief and the like. Conservancy, maintenance and construction of roads and buildings, drainage, sanitation, charitable and educational grants, absorbed most of the remaining funds.

"Any one conversant with the condition of the towns and cities of Upper India five-and-twenty years ago, who compares it with their present state, must admit that the improvement effected by municipal administration in matters affecting the public health, safety and convenience is immense. I may perhaps be permitted to mention the cities of Lucknow, Allahabad and Cawnpore, of which I have personal knowledge, and in the two former of which a considerable portion of my official life has been spent. These cities are now distinguished by wide and handsome streets, excellent roads, comparatively good drainage, which is being duly improved, and efficient conservancy; all brought about by municipal committees, in whose proceedings some of the leading and most intelligent citizens took an active part. In Lucknow, my friend Nazim Agha Ali Khan Bahadur, commonly known as the Agha Sahib, and the late Daroga Wajid Ali, so conspicuous for his loyal services to the British Government during the Mutiny, interested themselves above others in municipal affairs, and rendered invaluable assistance in municipal administration.

"Similar public spirit to that manifested by these gentlemen and others was not universal, and the system, under which the satisfactory results I have just alluded to were obtained, depended largely for its success in the first instance on the presence on committees of *ex officio* members. The number, however, of non-official residents of towns and cities who evince an intelligent interest in municipal business has been gradually increasing, and it is believed that the time has now come when the co-operation of officials on most municipal boards is no longer needed. The provisions of the present Bill have accordingly been framed with the view of giving to residents of the cities and towns to which it applies the sole management of their own municipal affairs, under rules for securing due attention to the public health, safety, convenience and interests generally—objects which a Government can suffer to be neglected. Some few places will still require the guiding hand of an official president, and in all a judicious exercise of the control from without established by the Bill cannot be safely dispensed with; but, with these exceptions, the State practically withdraws from the management of municipal affairs, in the expectation that the boards will prove themselves equal to the fresh responsibilities thrown upon them, and carry on with zeal and efficiency to ever advancing stages of development the system of municipal government, which has already conferred such substantial benefits on the united provinces."

The Hon'ble Mr. BANKS said:—"My Lord, there is only one point to which I wish to refer in connection with this Bill. I have no desire to oppose the passing of the Motion now before the Council, but it will be observed that I have qualified my assent to the Report of the Select Committee by expressing a doubt whether it was expedient to dispense with the notice now required before a suit can be brought against a committee or its officers for compensation for any thing done under the Municipalities Act. This question is likely to arise again with reference to other Bills now before this Council, and I may therefore briefly explain my reasons for considering it desirable that the law should require notice of such suits to be given.

"The principal reason is the tendency of such notice to reduce the number of cases in which municipal committees need be concerned as litigants. The object of the notice is to give them an opportunity of offering ~~amends~~ out of Court; and section 13 of Act XV of 1873 goes on to provide that, if sufficient amends are tendered before suit is brought, the plaintiff shall not recover. A similar provision is to be found, I believe, in all Municipal Acts now in force throughout India, those of the Presidency-towns included, and there is reason to believe that it has often led to claims being adjusted out of Court. It is said in the Report that the provisions of the Code of Civil Procedure on the subject

are sufficient; but the only notice before suit required by that Code is that provided by Chapter XXVII before suing Government or public officers. It was decided in Committee that it was not desirable to make Chapter XXVII of the Code, as originally proposed in the Bill, applicable to municipal committees; but, while I agree in considering the provisions of that chapter unsuitable, I still think that it would have been desirable to retain a provision similar to that contained in section 43 of the existing Act. Claims may of course still be adjusted out of Court, either after suit, or, if sufficient notice is given, before suit; but in cases of the former description the costs of bringing the suit must be paid by one party or other; and, if no notice is prescribed by law, cases of the latter description will be rare, as formal notice before suing is rarely given in India, and a plaintiff will think that he has done more than is necessary if he has told a member or servant of the committee that he intends to sue.

" My hon'ble friend Mr. Quinton has suggested that the Court would decree costs against the plaintiff if no formal notice had been given, but it is quite possible that the Court might think it harsh to throw all costs upon the plaintiff if he had given an informal warning to a member or servant of the committee.

" It appears that a similar provision which has long existed in English law has recently been found unnecessary, but the circumstances of England are very different from those of the interior of India, and I am unwilling to deprive municipal boards, which are bodies appointed to discharge a public duty, and are, like individuals, liable to or, of a protection which is given to public officers.

" A minor reason is that, as the protection has hitherto been given by law to municipal committees, it does not seem desirable to withdraw it just at the time when it is proposed to give them a more representative character and place them in a more independent position than before. This would not be a very strong reason if the protection served no useful purpose, but, from what has been already said, it will be seen that I think it is beneficial.

" But, as the Local Government has been informed that the Select Committee did not think that Chapter XXVII of the Procedure Code should be made applicable, and has not suggested that a provision similar to section 43 of the existing Act should be substituted, and the subject is one closely connected with local administration, I have not thought myself called upon to propose an amendment."

The Hon'ble MR. LIBERT said—" My Lord, my hon'ble friend Mr. Quinton has asked me to explain, somewhat more fully than it has been found possible to do in the Report of the Select Committee, the principles by which we have been guided in framing section 55 of the Bill, which delegates to municipal authorities the power to frame bye-laws. It is obvious that a power of this kind ought to be very carefully guarded and its exercise as carefully watched. Experience has shown that similar bodies have not unfrequently framed bye-laws which are either unnecessary, vexatious or in excess of their powers. This remark, I need hardly say, applies not only to India, but also to England. For the purpose of preventing similar abuses, it has been suggested that we ought to take away from municipal authorities the power of framing bye-laws, except those which are necessary for the regulation of their own proceedings, and to insert an exhaustive list of acts and omissions punishable within municipal limits, and of the penalties to be imposed for them. I do not think, however, that such a suggestion is practicable. I have examined carefully the different Indian Municipal Acts, and I find that, whilst they differ from each other materially with respect to the extent to which they define offences in the Act itself, or leave them to be defined by bye-laws, they all agree in reserving to local authorities a supplementary power of framing bye-laws for the prevention and punishment of petty municipal offences. The English Public Health Act, which goes into greater detail than is usual in Indian Acts, is framed on similar principles, and reserves to local sanitary authorities extensive powers of making bye-laws. This is a matter with respect to which I should be disposed to leave a reasonable amount of discretion to the Local Governments. I have not yet had an opportunity of minutely

examining the Punjab Municipal Bill, but it appears to have been framed with great care, and it contains provisions apparently borrowed from the Bombay, Bengal and Madras Acts, which specify in some detail the offences punishable under the Act. The North-Western Provinces Bill, however, has been framed on somewhat different lines, and the reason for this difference probably is, that the North-Western Provinces' Government have already framed a model Code of bye-laws which, as I understand, has been put in force, with local modifications, in a good many municipalities in the Province, which has been found to work well, and which, I presume, the Local Government would wish to continue in force with as little alteration as possible. Under these circumstances, the Select Committee have not thought it necessary to insert in the Bill provisions which had not been suggested by the Local Government, and the suitability of which they would not have had sufficient opportunity for considering. At the same time, we thought that the bye-laws clause which appeared in the Bill as introduced was susceptible of improvement. This clause appeared to me to be open to two objections. In the first place, it gave to municipal authorities the power to interpret the term 'public nuisance'—a power which should properly be left to the Courts of law; and secondly, it gave, by implication, to those authorities the power of creating offences punishable by so heavy a penalty as a fine of Rs. 200. I have gone through the offences which are punishable under the model Code of bye-laws now in use in the North-Western Provinces, and I find that, with few exceptions, the offences dealt with under them can be brought under one of two categories. They are either offences which might properly be treated as belonging to the same class as those defined as public nuisances by section 208 of the Penal Code, or else they are offences which might be appropriately dealt with under that chapter of the Code (Chapter XIV) which contains this section, and which is headed 'Of offences affecting the public health, safety, convenience, decency or morals.' We have accordingly, by the first sub-section, given a general power to municipal authorities to frame bye-laws for the prevention and punishment of offences belonging to either of these two categories, and we have added sub-sections dealing specifically with offences about which a doubt might be entertained whether they were sufficiently covered by the general words of the first sub-section. And, in order to avoid an artificial extension of the term 'public nuisance,' we have not given that name to offences against municipal bye-laws as such. Of course, there are many offences which might be punishable both under the Penal Code and under a municipal bye-law. In these cases, the prosecutor will have the option of proceeding either under the one or under the other, subject to a proviso, which will be found in section 70 of the Bill, and which provides that no person shall be punished twice for the same offence.

"Then, we have provided sundry safeguards against the possibility of municipal committees exceeding or abusing their powers. In the first place, the maximum penalty for an offence against a municipal rule is limited to Rs. 50, with a proviso for the case of continuing offences; next, a draft of the proposed rules must, under section 68, be published, and objections and suggestions from persons interested must be invited before the rules are passed; and, lastly, the rules are made subject to the approval of the Local Government. This procedure is substantially the same as that prescribed in the case of bye-laws under the English Public Health Act. All such bye-laws require the sanction of the Local Government Board, and the course adopted by that Board in dealing with such bye-laws is this. They have drawn up a model Code of bye-laws containing all such provisions as have been shewn by experience to be necessary and sufficient, and they do not allow local authorities to depart from this model except for special reasons to be assigned in each case. I think that, if Local Governments in India adopt a somewhat similar course, and employ a reasonable amount of care in framing their model Code of bye-laws, there can be no ground for apprehension that the powers entrusted to municipalities are likely to be abused or exceeded.

"So much for bye-laws. Next, as to the point which my hon'ble friend Mr. Barkley has raised, with respect to the propriety of omitting the provision which

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requires a month's notice before the institution of legal proceedings against a municipal committee. As my hon'ble friend Mr. Quinton has explained, we have, in omitting this provision, followed the most recent precedents of English legislation. Protective clauses of a similar kind to that which we now propose to omit are to be found scattered up and down in great abundance in the English Statute-book. I once had occasion to make an exhaustive examination of these clauses for the purpose of seeing whether they could not be enacted once for all in a generalized form. I found that they had a long history, and that some of the forms now in use contained provisions which dated from the time of James I, and had been copied mechanically from one Statute into another, though they had long ceased to be of any practical utility. When the English Army Act was being framed, the most suitable form of such a clause was carefully considered, and the conclusion come to was that the requirement of a month's previous notice of action was likely to do more harm than good, and had better be omitted; the reason being that no person of ordinary prudence begins legal proceedings against an individual or a body of individuals for acts done under colour of statutory authority without taking the precaution of previously sending a lawyer's letter or in some similar way affording an opportunity of settling the matter without litigation; and that, if any person was so foolish as to dispense with this precaution, he would probably be mulcted in costs, even if he won his case. It appeared to me that, notwithstanding the differences between English and Indian circumstances to which Mr. Barkley has referred, the same considerations applied in India also; and, though I am fully impressed with the importance of protecting persons in office from vexatious litigation, yet I am very reluctant to increase the number of formalities of which proof must be furnished before a suit can be maintained, or to make any addition to the number of the existing opportunities for delay and procrastination which our civil procedure affords. Moreover, if such a provision as this is really required, it ought to be embodied in a general Act, which should grant the necessary kind of protection to all persons acting under statutory or other similar authority. These were the reasons which induced me to advise the Committee to omit the clause in question from the Bill."

The Motion was put and agreed to.

The Hon'ble Mr. QUINTON also moved that the Bill as amended be passed.

The Motion was put and agreed to.

PANJĀB MUNICIPALITIES BILL.

The Hon'ble Mr. BURKLEY moved that the Bill to make better provision for the organization and administration of Municipalities in the Panjab be referred to a Select Committee consisting of the Hon'ble Messrs. Gibbs, Ilbert, Hope, Hunter and Quinton and the mover. He said:—"My hon'ble friend Sir Stewart Bayley has mentioned to me that the Hon'ble Mr. Gibbs would shortly relieve him of the charge of the Home Department, and asked me to substitute Mr. Gibbs' name for his. I have altered the Motion accordingly, and if this alteration is not objected to, I desire to move that the Bill be referred to a Select Committee consisting of the hon'ble members abovenamed."

The Motion was put and agreed to.

The Council adjourned to Wednesday, the 19th September, 1883.

D. FITZPATRICK,

SIMLA; }  
The 18th September, 1883. }

Secretary to the Government of India,  
Legislative Department.

GOVERNMENT OF INDIA.

LEGISLATIVE DEPARTMENT.

ABSTRACT OF THE PROCEEDINGS OF THE COUNCIL OF THE GOVERNOR GENERAL OF INDIA, ASSEMBLED FOR THE PURPOSE OF MAKING LAWS AND REGULATIONS UNDER THE PROVISIONS OF THE ACT OF PARLIAMENT 24 & 25 V.R.C., CAP. 67.

The Council met at Government House, Simla, on Wednesday, the 19th September, 1883.

P R E S E N T :

His Excellency the Viceroy and Governor General of India, K.G., G.M.S.I., G.M.I.E., presiding.

His Excellency the Commander-in-Chief, G.C.B., C.I.E.

Lieutenant-General the Hon'ble T. F. Wilson, C.B., C.I.E.

The Hon'ble C. P. Ilbert, C.I.E.

The Hon'ble Sir S. C. Bayley, K.C.S.I., C.I.E.

The Hon'ble T. C. Hope, C.S.I., C.I.E.

The Hon'ble W. W. Hunter, LL.D., C.I.E.

The Hon'ble J. W. Quinton.

The Hon'ble D. G. Barkley.

PROTECTION OF INVENTIONS BILL.

The Hon'ble Mr. ILBERT presented the Report of the Select Committee on the Bill for the protection of inventions exhibited in the Exhibitions of India.

NATIVE PASSENGER SHIPS ACT, 1876, AMENDMENT]BILL.

The Hon'ble Mr. ILBERT also presented the Report of the Select Committee on the Bill to amend the Native Passenger Ships Act, 1876.

LEGAL PRACTITIONERS BILL.

The Hon'ble Mr. ILBERT also moved for leave to introduce a Bill to amend the Legal Practitioners Act, 1879, and the Indian Stamp Act, 1879. He said :—

"The object of this Bill is to amend the Legal Practitioners Act, 1879, in certain respects in which experience has shown that the existing law is defective.

"Section 13 of the Legal Practitioners Act, 1879, contains a provision that the High Court may suspend or dismiss any pleader who takes instructions in any case except from the party on whose behalf he is retained, or from a private servant of such party, or from some person who is the recognized agent of such party within the meaning of the Code of Civil Procedure. It has been brought to the notice of the Government that the practical operation of this provision is in certain cases attended with inconvenience to litigants and pleaders. In litigation in which pardānashin women are concerned, instructions must often, as a matter of necessity, be given through their near relatives. Again, there are cases in which male litigants, who have not the means of employing private servants, are unable from various causes, such as physical incapacity or old age, to instruct their pleaders in person. In such cases, it seems right to allow the relatives of the litigants to instruct pleaders on their behalf. Section 3 of the Bill accordingly adds a proviso to section 13 of the Act enabling pleaders to take instructions from a relative of the party deputed by him or her.

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to instruct the pleader when the party is a pardánashín woman or unable for any sufficient cause to instruct the pleader in person.

"Under the Legal Practitioners Act, 1879, an advocate not ordinarily practising in his own province must, if he wishes to practise in such a province as the Central Provinces, for example, where the Judicial Commissioner has at present no power of enrolling advocates, first enrol himself as a pleader. As this state of the law is felt by certain persons to be a grievance, a new section has been added to the Act, empowering all High Courts not established by Royal Charter to enrol advocates as the Chief Court of the Panjáb is at present empowered to enrol them. As the power of suspension or removal would, except in the case of the Panjáb Chief Court, be vested in a single officer if it were conferred absolutely on the High Court, it has been thought well to make every order by any High Court other than the Panjáb Chief Court suspending or removing an advocate subject to confirmation by the Local Government.

"The new section 42, which section 5 of the Bill adds to the Act, provides for the repeal of Acts I of 1846 and XX of 1853 in all places to which that section may be extended. The Madras High Court has noticed that these Acts have not as yet been expressly repealed in that Presidency, though a great portion of the Legal Practitioners Act, 1879, has been brought into operation there. These Acts are, it is believed, already repealed in all the provinces to which the Legal Practitioners Act, 1879, extends *proprio vigore*; but it is possible that they may be still unrepealed in some of the other provinces to which the Act either has already been or may hereafter be extended under the power conferred by its first section. The new section 42, taken with section 1. of the Act, will enable the Local Government of any such province to repeal the Acts if still in force in it.

"Lastly, section 6 of the Bill amends article 27 of schedule I and article 11 of schedule II of the Indian Stamp Act, 1879, by omitting the words which confine their operation to advocates of the chartered High Courts. As section 41 of the Legal Practitioners Act, 1879, empowers the Chief Court of the Panjáb to enrol advocates, and as the Bill will confer similar powers on the other non-chartered High Courts, the words in question are, as represented by the North-Western Provinces High Court, out of place, so far as advocates are concerned, and should therefore be omitted."

The Motion was put and agreed to.

The Council adjourned to Thursday, the 4th October, 1883.

D. FITZPATRICK,

SIMLA;

The 20th September, 1883.

Secretary to the Government of India,

Legislative Department.

GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## REPORTS ON THE STATE OF THE SEASON AND PROSPECTS OF THE CROPS FOR THE WEEK ENDING THE 18th SEPTEMBER 1863.

**GENERAL REMARKS**—In the Carnatic, Travancore and parts of the Southern Mahratta Country the rainfall of the past week has been somewhat deficient, and more rain is wanted for unripened crops, otherwise the prospects in Southern India are fair. There has been a slight rise in the river in Sind, but it remains below its usual level; at Kurrachee, however, it is reported to be higher than last year. In Hyderabad and the Berars the crops are generally in excellent condition and throughout Central India and Rappur not good, and in some places abundant rain has greatly benefited the *khursif* and improved the pasture.

In Burma, Assam and Bengal crop prospects are on the whole favorable, although some damage has been done by pest floods, and more rain is wanted in parts of Behar and Central Bengal. In the North-Western Provinces and Oudh and Central Provinces the rice crop has suffered from the long break in August, but other crops are doing well and the rainfall of the week under report has been general and very beneficial. Hardly any rain fell during the week in the Punjab, but prospects there have materially improved.

Harvesting is still in progress in Madras. Ploughing and sowing for the *rabi* has begun in the Bombay Presidency, Rajputana, the Central Provinces and the North-Western Provinces and Oudh, and the early *khursif* crops are being cut. Harvesting of early rice and paddy continues in Bengal, the outturn being generally fair. In Burma rice sowings have been finished and transplanting is nearly completed.

Cattle-disease in mild form is reported from most districts, in Burma the mortality has slightly increased.

Cholera still exists in Bombay, the Central Provinces and Northern India, but is decreasing. The usual autumnal fevers prevail.

Prices are keeping steady.

Presidency or Province and Districts <sup>1</sup>	Rainfall for week under report	State of agricultural prospects
<b>Madras—(Sept 19th)</b>		
Bellary	18 (average of three stations)	Standing crops generally good
Kurnool	.. 05	Rain still needed in four talukas, standing crops elsewhere good. Harvest of indigo in parts, yield 11 annas. Cattle disease in seven talukas.
Ganjam	.. 93 (average of twelve stations)	Standing crops generally thriving. Fever and small pox exist.
Kistna	.. 65 (average of four stations)	Rain needed throughout. Dry crops failing. Cholera suffering from grub in one taluka. Harvest of gingelly yield below half. Fever, small pox, guinea worm and cattle disease in parts.
Chingleput (Madras)	.. 95	Standing crops withering except in one taluk for want of water. Harvest of kar paddy &c, yield half. Small pox slight in three talukas, no cases in one taluka. Cattle disease slight in all talukas.
Combatore	89 (average of six stations)	Standing crops <i>chikungna</i> damaged by insects in one taluka. Dry crops in eight talukas want rain. Harvest of cholam and ragi, yield average. Fever and small pox in parts, cholera in one taluk, three deaths.
Tanjore	117 (average of eight stations)	Standing crops generally good, but dry crops in four talukas want rain. Harvest paddy and gingelly yield below average. Twenty-six deaths from cholera.
Madura	.. 113 (average of four stations)	Standing crops withering except in two talukas. Harvest of paddy and dry crops in parts.
Malabar	.. 118 (average of nine stations)	Standing crops good. Harvesting continues. Second crop cultivation begun in seven talukas. Small pox slight in nine talukas, fever in three talukas. Cholera in two talukas 5 deaths.
Travancore	377	Harvesting continues. Preparations for next cultivation begun. Fever and dysentery prevail, 1 death from small-pox. Rain needed in several districts. <i>General Remarks</i> —General prospects fair.
<b>Bombay—(Sept 19th)</b>		
Kurrachee	88, being average of fourteen stations	River at Kotri on 17th 14 feet 7 inches against 13 feet 9 inches on same date last year. Fever in five talukas. Cattle disease in two talukas, some loss among cows and buffaloes. Coughs and dysentery at Kotri. Wheat, red rice, and bajri in Kurrachee 24, 28 and 84, in Shewan 32 and 46, in Tatta 26, 28 and 36, and in Jait 36, 33 and 46/- per rupee, respectively.
Hyderabad	Rain in two talukas, average fall 90	River has risen 1 inch since last week, but was 3 feet lower on 17th instant than on same date last year. Crops are reported to have suffered from blight and rats in taluka Badin. Small pox in one, fever in two, and cattle-disease in three talukas. White 24, bajri 36, jauari 46, red rice 26, and white rice 20 lbs. per rupee.

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Presidency or Province and District	Rainfall for week under report	State of agricultural prospects
Bombay—contd.		
Ahmedabad	40	Total rainfall 10.62. Crops healthy. Cholera abating 5 cases, 3 deaths slight fever in Alibali, Modasa, and Valsingam. <i>Bajre</i> 20 and wheat 24 lbs per acre.
*		
Baroda	74	1st day rainfall 4.93. Crops in good condition. Locusts in Sanghad, Matney, and Ayari talukas of Nasar division. <i>Bajre</i> 27 and rice 21 lbs per acre.
Burut	54	1st day rainfall 6.74. Condition of crops good. Cholera in Bulsar 18 cases, 14 deaths slight fever in Pali. Locusts in some talukas. <i>Jau</i> 37 and rice 24 lbs per acre.
Nasik		1st day rain. Sowings of <i>khari</i> completed. Heavy and continuous rain slightly damaged the <i>khari</i> crops in places. Land as being prepared for <i>rabi</i> . No cholera. Cuttle disease in two villages of Burut. Locusts throughout the district doing no damage, save in K. Iwan. Wheat 25, <i>bajre</i> 28, and rice 22 lbs per acre.
Cobla (Bombay)	Very little rain, cold of week 32	1st day rainfall to date 72.14. Being 7.20 above average. Abnormal temperature 0 to 1 cool. Vapour in air defective. Wind normal. Barometer high.
Poona	Light showers in all talukas	Nine deaths from cholera. <i>Bajre</i> 39 and <i>jau</i> 17 lbs in Poona. <i>bajre</i> 34 and <i>jau</i> 11 lbs.
Ahmednagar	Very light rain in four talukas and none in the rest	All <i>rabi</i> crops are doing well. Sowing of <i>rabi</i> has commenced in all the talukas except Parma, Jamshet, and Sangham. Cuttle disease prevalent to an extent in Karpur. Cholera 17 attacks, 11 deaths. <i>Bajre</i> maximum 20 lbs in Jadh. Maximum 36 in K. Jangam. <i>jau</i> —maximum 72 in Khankhad minimum 15 in K. Jangam.
Sholapur	No rain	<i>Kharif</i> crop good. <i>rabi</i> 's wings commenced in places. No damage by locusts. Cholera 70 cases & 31 deaths. <i>Jau</i> 17 and <i>bajre</i> 5.1 lbs. 1.3 with.
Dharwar	Slight rain at eight stations, maximum at Hubb	Rainy and hot in Ghat, 5 m. and some other places. Starting crops. Sowing of <i>rabi</i> grassing in progress in 1st week in others. Rainy and hot in 1st half of month. Sowing wheat, gram, and other cereals full strength. <i>bajre</i> 17 to 28 lbs per acre in Raval, minimum 10 lbs in Magud patti and 10 to 20 lbs in Hattal, to 25 lbs in J. N. D.
Kanara	Kurnar 1.32, Kurni 11.51, Susti 8.93, Hidid 3.80	1st day rainfall 14.10. The long duration has commenced. Rice plants healthy. Three cases of small pox in Hidid. Common rice in Kurnar 13 in district, varying 140 seeds per square yard.
Rajkot	13	1st day rainfall 25.09. Weather hot and cloudy. General health good. <i>Bajre</i> 26 and <i>jau</i> 11 lbs per acre.
<i>General Remarks</i> —Slight rain in some districts more wanted in parts of the southern Malabar Country. <i>Kharif</i> crops generally good. Preparations for <i>rabi</i> in progress. Little damage from locusts. Cholera in many districts but of a mild character. Slight fever and cuttle disease in a few places.		
<b>Bengal—(Sept 19th)</b>		
Chittagong	3.19	Weather reasonable. Transplanting of late rice nearly finished. Prospects good. Prices steady. Cattle disease still reported.
Dacca	15	<i>Rochia</i> paddy being sown now and not being cut. Prospects good.
24-Pergunnahs (Calcutta)	30	Prospects of crops good. Harvesting of early rice still going on, northern above average. Transplanting of late rice finished. Price of common rice stationary. Public health generally good, though cases of fever reported from Burut and Bassabhat sub divisions.
Moorschedabad	40	Weather sultry. Rain much wanted for late rice. Other crops doing well. Public health good.
Rajshahi	2.10	Weather dry and hot. Crops doing well. More rain wanted. <i>Aus</i> rice being harvested.
Burdwan	33	<i>Aus</i> rice being ripened, culturing fair among rice paddy family. Public health tolerable.
Ranipore	5.76	Weather cloudy and rainy. Prospects of crops good. Culturing of <i>rabi</i> proceeding. Poorly provided shelter at Kaligunge.
Rhangpur	1.11	More rain wanted for winter rice.
Purneah	2.25	Prospects of crops good. Farming operations normal. Health fair.
Patna	2.20	<i>Rhodan</i> crops promising. Transplanting of paddy still going on. Cholera reported from several towns of Purnea sub-division.
Darbhanga	43	More rain wanted but crops have got only improved and prospects are not yet favourable.
Hazarbagh	1.91	Weather warm and suitable. Prospects of rice crop continuing favourable. <i>Rhodan</i> crops still being harvested. General health good.
Gautamkot	36	Weather reasonable. Early rice being cut, late rice being re-ploughed and thriying well. Price of rice has been a little high. Public health good.
<i>General Remarks</i> —There has been general rain during the week. It has done much good in Behar, but more is still much wanted there, as well as in Central Bengal, for late rice especially on high lands. Early rice, jute, and other autumn crops are being harvested, and promise to give a general fair return though in some districts it will be under an average. Fever is said to be prevalent in some districts, but the general health of the province is still very fair.		

Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.
<b>N. W. Provinces and Oudh—</b>		
Banaras (Sept. 18th)	Banaras, 3'50; Chan-damasi, 1'30.	Crop prospects much improved. Fever continues. Cattle-disease of a very mild type reported in places. Prices steady.
Allahabad ( " 19th)	Good rain everywhere except at Saur, where only 70 has fallen; in the remaining eight talukas the average is 2'30.	Harvest prospects good. Health generally good. Cholera, 5 deaths. <i>Bajri, jauari, and arhar</i> risen in price and <i>dhan</i> and <i>kauri</i> fallen, other prices steady.
Gorakhpur ( " 18th)	Rain more or less abundant all over district on 13th and 14th; Mahanayganj, 3'60; Deoria, 1'90; Banegaon, 1'20.	Prospects much improved. Sharp outbreak of cholera in jail, prisoners moved into camp; one or two cases also in city.
Jhansi ( " 17th)	Jhansi, 1'80; Mai, 2'90; Moth, 2'70; Garothia, 1'00.	Rice and minor crops somewhat damaged for want of rain. <i>Juari, bajra, til, and cotton</i> are looking well. Prices fluctuating. Health of men and cattle good.
Agra ( " 18th)	Rain in all parganas from 10 to 1'80.	Sporadic cholera in two and fever in three parganas. Prices slightly falling. More rain wanted. No cattle-disease.
Rao Bareli ( " 17th)	Rain during week—Sadr, 5'74; Dighbjajganj, 3'70; Dalman, 1'30; Saloni, 1'80.	Prospects of <i>kharif</i> crop greatly improved. General health good. Supplies sufficient. Prices steady.
Meerut ( " 18th)	Meerut, 1'00; Bagpat, 1'40; Hapur, 1'70; Mowana, 40; rain has fallen in outlying villages of Ghazab-ad.	Though recent rain most beneficial, more would be advantageous. West wind blowing and symptoms of approaching cold season. Prospects fair. Health good. Labour abundant. Supplies sufficient. Prices steady.
Kumaun ( " " )	.....	Fine weather is now required for the crops, sufficient rain having fallen. Health of people fair. Cattle-disease continues. Prices unchanged.
Lucknow ( " " )	Abundant and general rain during week; Lucknow, 4'50; Mahabnd, 8'40; Mohan-lalganj, 3'20.	Heavy clouds still overhanging. Rice crop has suffered to some extent, but it is now improving; <i>kharif</i> crops are doing very well. Condition of people and cattle good. Markets well supplied. Prices stationary.
Partabgarh ( " " )	Sadr, 1'00; Kanda, 3'60; Patti, 1'00.	Prices steady. Rice suffering from drought in a small tract in Patti taluk. Prospects elsewhere good. <i>Juari, rice, kakan makra, and sava</i> being cut. Health good.
Sitapur ( " " )	Sitapur, 1'50; Sidhouli, 3'20; Biswan, 4'70; Mierikh, 0'90.	Marked improvement in prospects. Fall in prices of all grains except <i>dhan</i> and <i>kodo</i> which is stationary and <i>sava</i> which has risen.
Fyzabad ( " " )	Sadr, 3'00; Bikapur, 3'20; Akbarpur, 1'20; Tanda, 60.	Prospects improved. Public health good.
Bareli ( " " )	Passing showers	Weather cloudy. <i>Kharif</i> fully average, except rice and indigo. Cholera confined to original locality.
Cawnpore ( " " )	Good rain throughout the district, though varying considerably.	Weather favourable. Prospects improved. General health of the people good. Slight cattle-disease in one pargana only. Prices slightly fallen.
Farukhabad ( " " )	.....	Sky slightly overcast and favourable for all crops and for preparation of <i>rabi</i> sowings. Later <i>kharif</i> crops very promising, except rice. <i>General Remarks</i> —The improvement in the crop prospects noted last week continues, rain having fallen freely in most districts. Prices have not changed much. Cholera has broken out in Gorakhpur jail, and there have been 5 deaths from this disease in Allahabad.
<b>Punjab—(Sept. 18th).</b>		
Delhi	.....	Health good. Crop prospects improved. Prices stationary.
Hissar	.....	Crops thriving. Health good. Prices stationary.
Umballa	.....	Health good. Crop prospects much improved, but yield expected to be below the average. Prices rising.
Jullundur	.....	Health good. Crop prospects improving. Prices falling.
Amritsar	.....	Health good. Prices falling.
Sialkot	.....	Health and harvest prospects good. Prices falling.
Ferozepore	Zira, 1'50	Health good. Crop prospects improved. Prices steady.
Lahore	.....	Health good. Crop prospects much improved. Prices stationary.
Rawalpindi	1'50	Health good. Crop prospects good. Prices falling.
Mooltan	.....	Health and crop prospects good. Prices stationary.
Dera Ismail Khan	.....	Health good. Rain needed. Crops suffering. Prices steady.
Peshawar	.....	Health and harvest prospects good. Rain wanted. Prices falling. <i>General Remarks</i> —Slight rain in one or two districts. General health good. Crop prospects improving.

Presidency or Province and District.	Rainfall for week under report	State of agricultural prospects.
<b>Central Provinces—(Sept 19th)</b>		
Magpur	95	Weather fair. People's health 118 deaths from cholera. Prices steady.
Jubbulpore	20	Weather cloudy and cool. Slight rain. Weather good. Crops good. Health good. Progress slow.
Banger (Sept 18th)	86	Weather cool with slight rain. Crop fair and good. Prices steady. Health fair.
Sonai	2 59	Heavy rain on 19th & 20th. Very heavy damp weather. Crops fair. Filling water needed. Progress slow.
Hoshangabad	3 63	Weather fair and cool. Weather good. Progress slow. Weather fair and cool. Weather fair. Wheat 15 and rice 9 sown.
Khandwa	3	Weather cool and dry. Progress good. Minor crops being sown. Health fair.
Starapur	2 17	Progress fair and slow. Many new wells dug, especially in Singra Bhait. Price steady.
Sambalpur (Sept. 15th)	10	Weather fair and cool. Crop sowing but less to the extent of former as expected. Health good. Common in small pox. <i>General Remarks.</i> —Progress continue fair and slow and the injury caused by the long drought the year has been in a great measure repaired except in portions which appear to have suffered permanent damage to the extent of one quarter of the crop in some parts of the provinces.
<b>British Burma—(Sept 19th)</b>		
Akyab	6 48	Rainfall to date 167 23. Ten deaths from cholera in Kedah, 3 in Martaban, and otherwise probably other cases. Seventy-four deaths of cattle in Mergui and Martaban, and elsewhere. Health of plough cattle good. Transplanting imminent. Crops promising.
Rangoon	1 20	Rainfall to date 70 35. One death from small pox, otherwise public health good. Price of paddy from Rs. 86 to 88 per 100 baskets.
Bassein	1 21	Total rainfall to date 79 47. Four deaths from cholera in Kyauktaw township, one from small pox in Thabyinthe circle, otherwise public health good. Sixty-five deaths of cattle in four townships. Planting has stopped, partly somehow finds. Transplanting about 1,000 acres in state. Paddy plants thriving. Price of paddy from Rs. 80 to 100 per 100 baskets.
Amberet (Moulmein)	10 92	Total rainfall to date 14 0. Public health and health of cattle in Moulmein and districts good. Crops healthy in Moulmein town. Ploughing, sowing and transplanting progressing. Seedlings and crops good.
Toungoo	3 42	Total rainfall to date 69 83. Public health and health of plough cattle good. Transplanting progressing. Average price of paddy Rs. 75 per 100 baskets.
Kyaukphyow	..	No report received.
Sandoway	..	No report received.
Hanthawaddy	..	Public health and health of cattle good. 10640 acres have been ploughed. Some of the crops in the Aungdawng, Bowley and Myoongtura circles, Hlawn township have been destroyed by floods. Transplanting going on in the Hlawn and Thunawang townships. Ploughing was 60 baskets of paddy per man in the Hlawn township. Price of paddy from Rs. 80 to 100 per 100 baskets.
Pegu	8 55	Rainfall to date 169 76. Public health good. 14 deaths of cattle in Kyauktan. Slight cattle-disease in Paganloung. Transplanting finished. Season continues most favourable.
Tharrawaddy (Sept 8th)	9 00	Rainfall to date 83 07. Public health good. 71 deaths of cattle in the Tapan and Mintha townships. Health of plough cattle good in all other townships, except Geyohngonk where slight disease prevails. Ploughing, sowing, and transplanting progressing. Crops on 2,000 acres in Singway township reported as destroyed by floods, the damaged crops best reported are being replaced. Price of paddy from Rs. 90 to 95 per 100 baskets.
Tharrawaddy (,, 15th)	2 70	Rainfall to date 85 77. Public health good. 17 deaths of cattle in Mintha and Tapan townships. Health of plough cattle in all the other townships good, except Geyohngonk where <i>haung</i> disease prevails. Ploughing, sowing, and transplanting progressing. Crops on 600 acres in the Tapan township have been destroyed by floods, in the Singway township the floods have subsided, and there is a prospect of the flooded land being successfully cultivated, about 200 acres of paddy land still remain under water. Price of paddy from Rs. 95 to 100 per 100 baskets.
Prome	1 24	Rainfall to date 39 32. One death from cholera in Mahathaman, otherwise public health good. Health of cattle good, except at Mahathaman, where 6 deaths from small pox are reported. 150,000 acres ploughed and 12,370 planted. More rain wanted in the southern circle of Shweydoming township, reports from other townships favourable. Price of paddy Rs. 62 per 100 baskets.

President or Province and District	Rainfall for week under report.	State of agricultural prospects.
<b>British Burma—contd</b>		
Thongwa .....	1.35	Rainfall to date 70.73. Two deaths from cholera in Donathyou township otherwise public health good. Health of cattle good. Ploughing nearly completed. Transplanting progressing. Young crops destroyed by floods in parts of Donathyou and Thongwa townships. Supply of seedlings sufficient. General appearance of young plants good, except in parts of the Donathyou and Thongwa townships. Transplanting wages one rupee or one basket of paddy per day. Price of paddy from Rs. 80 to 90 per 100 baskets.
Henzada .....	6.10	Rainfall to date 75.37. Three deaths from small-pox in Hanzada township otherwise public health good. Health of cattle good. Transplanting almost completed in the Hanzada subdivision and progressing in the Myanmein subdivision. Seedlings and plants in good condition.
Thantetyou .....	1.11	Rainfall to date 27.00. Public health good. 57 deaths of cattle in Myanmein subdivision. Crops all suffering from want of more rain, but there has been rain and prospects are improved.
Shwaygyin .....	3.10	Rainfall to date 122.95. Four deaths from small-pox in Mono circle, otherwise public health fair. 19 deaths of cattle in Mono circle, and cattle disease in Kyaukkyi. Ploughing finished, except in flooded parts. Transplanting and sowing nearing completion. Price of paddy Rs. 70 per 100 baskets.
Tavoy .....	3.92	Rainfall to date 171.98. Public health and health of cattle good. General appearance of the plants good.
Mogau .....	..	No report received.
<i>General Remarks</i> —Rainfall still deficient compared with last year, but agricultural prospects on the whole favourable. Transplanting approaching completion. Sowings finished. Public health good. Cattle disease in parts of Akyab, Thatonwaddy, Bassin, Thantetyou, and Shwaygyin, and slight increase of mortality. Price of paddy continues steady.		
<b>Assam—(Sept. 18th)</b>		
Gauhati .....	68	Weather hot. Transplanting of <i>sati</i> paddy in progress. Public health fair. Cattle disease still in the inferior.
Sylhet .....	11.19	Floods gone down. Crop prospects good. Public health fair except in Khameng where small-pox is bad.
Cachar .....	7.61	Weather warm with heavy rains at intervals. Transplanting of <i>sati</i> apparently finished. Sowing of <i>ans</i> crops commenced. Public health good. Small-pox still reported from Hailakandi.
Dibrugarh .....	1.31	Weather showery. Transplanting of <i>sati</i> <i>dha</i> finished. Public health good.
<b>Mysore and Coorg— (Sept. 19th)</b>		
Bangalore .....	20	Standing crops in fair condition. More rain needed. Prospects favourable.
Mysore .....	10	Prospects promising. Standing crops generally good.
Merinda .....	57	Creation of monsoon on the 11th adventitious to crops. Cardamoms have ripened and the green coffee berries will shortly do so. Paddy seedlings have been planted out. The <i>ragi</i> crop is coming into ear. Public health good. Prices of food grains low and almost stationary.
<i>General Remarks</i> —Rainfall in districts from 10 to 150. Sowing operations continue. Standing crops generally in good condition. Public health in the province good. Prices—rice from 10 to 24 seers, <i>ragi</i> from 30 to 48 seers, and horse gram from 29 to 36 seers per rupee.		
<b>Berar &amp; Hyderabad— (Sept. 19th)</b>		
Anzooti .....	60	A break in the weather during the week has benefited the crops. Wheat 16 and <i>jvari</i> 20 seers per rupee.
Akola .....	61	Crops in good condition.
Hyderabad .....	20	Total rainfall from 1st January 24.93. Standing crops flourishing. Reaping of <i>kharif</i> crop commenced. Cholera broken out in one taluk. No cattle-disease. Price—wheat 16, coarse rice 10 $\frac{1}{2}$ , white <i>jvari</i> 21, yellow <i>jvari</i> 27 $\frac{1}{2}$ , and <i>tau</i> 24 seers per current rupee.
<b>Central India States— (Sept. 19th)</b>		
Jodhpur .....	Night showered	Health fair. Prices of food-grains stationary.
Berus (Gwalior) .....	1.43	Prospects good. Cholera disappeared. Prices falling.
Satna .....	2.80	Prospects good.
Ratlam .....	..	No report received.
Neemuch .....	5.86	Prospects and public health good.
Gondia .....	11.76	Health and crops good. Prices stationary.
Bhopal .....	..	No report received.
Agar .....	10.9	Crops abundant.
Sehore .....	12.31	Prospects and public health good.
Nowrang .....	1.28	<i>Kharif</i> prospects much improved. Prices falling. <i>Ganna</i> safe.
Manpur (Bhopawar) .....	1.90	Health fair.
		Weather favourable. Crops promising.

Presidency or Province and District	Range for week under report	State of agricultural prospects
<b>Rajputana—</b>		
Abo bindra (Sept. 10th)	00	Bright weather with light clouds. Seas able, water
bindra (Sept. 16th)	176	Water supply and health good. Crop prospect fair.
Marwar (Sept. 14th)	Jodhpore 205; good showers in districts	Crops and grasses reviving. Fresh sowings thriving. Price stationary.
Mewar (Sept. 16th)	212	Water supply very good. Prospects improved. Price falling. Health
Hanowti (Sept. 15th)	Dholi 173; Tank 271; Sardarpur 163; Hotodi 832	Health not really improved. Rate of influenza among men Price fluctuating. Health excellent excepting a few deaths from cholera at Kotdi.
Dhallawar	Not reported in W.	
Ajmere (Sept. 18th)		Normal. Prospects favourable. Midge harvest commencing. Health fair.
Jaipore	(not yet)	Prospects favourable. Health fair. Price steady.
Blunt(pozie)		Normal.
Ulwar (Sept. 15th)	527	Prospects improved. Rate of cultivation commenced. Price falling. Health good. Good supply of water in tanks and wells.
<b>Nepal—(Sept. 18th)</b>		
Katmandu ..	290. Frequent rain in the last few days.	Constant and heavy clouds. Prospects good.

**ABSTRACT SHOWING THE RESULT OF IMMIGRATION FROM THE PORT OF CALCUTTA DURING THE MONTH OF  
MAY 1881.**

A. J. Astbury and set

	Males			Females			Males			Females			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 2 years	6	7	13												
From 2 to 10 years	29	12	41												
= 10 " 20 "	64	30	94												
= 20 " 30 "	106	76	182												
= 30 " 40 "	13	3	16												
= 40 " 60 "	2	6	8												
Above 60															
GRAND TOTAL	310	132	442				171	82	253				181	211	695

No. II.—As to places whence emigrants come to Calcutta for embarkation.

## No. III.—As to caste and religion.

	NAVAL.			MARITIME			TOTAL		
	M.	F.	T.	M.	F.	T.	M.	F.	
Brahmins high caste	18	16	64	31	35	49	82	31	113
Ancient Brahmins	81	27	108	53	27	80	134	54	188
Astasims	16	11	20	1	1	3	20	5	25
Low castes	119	60	185	50	21	71	169	90	259
Musulmans	12	19	61	31	15	45	72	31	106
Christians	1	1	2	1	0	1	1	0	4
Chavva Force	310	132	442	171	82	253	481	211	695

*Memo.*

	Male	Female	Total
1. Hindus	405	180	585
2. Musulmans	72	31	106
3. Christians	1	1	2
Total	481	211	695

E. C. BUCK,  
*Seay. to the Govt. of India.*



SUPPLEMENT TO  
**The Gazette of India.**

Nº 39.} CALCUTTA, SATURDAY, SEPTEMBER 29, 1883.

OFFICIAL PAPERS.

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GOVERNMENT

## DEPARTMENT OF FINANCE

## PRICES CURRENT OF FOOD-GRAINS THROUGHOUT INDIA

Districts	QUANTITIES PER RUPEE																			
	Wheat.				Barley				Rice (best sort)				Rice (common)				Great Millet (Chetom, Jower, Holes, Sorghum)		Bairush Millet (Oon-bao, Baiks), Penthakara & Palas	
	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.		
MARATHA	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.		
Gunjamb . . . .	9 10	10 5	7 6	.. ..	.. ..	.. ..	17 0	17 0	17 13	17 14	17 14	19 8	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		
Vengapatam . . . .	10 0	9 8	10 0	.. ..	.. ..	.. ..	.. 8	9 8	9 0	11 14	11 14	11 6	19 21	10 21	10 23	18 23	18 23	18 23		
Godavary . . . .	10 13	10 18	11 11	.. ..	.. ..	.. ..	10 14	10 14	10 14	14 0	14 0	17 0	24 0 23	0 23	0 23	.. ..	.. ..	.. ..		
Kista . . . .	8 13	8 18	12 11	.. ..	.. ..	.. ..	14 0	14 0	15 11	14 11	14 11	16 5	20 18 20	18 24	14	.. ..	.. ..	.. ..		
Nellore . . . .	10 13	9 14	12 10	.. ..	.. ..	.. ..	13 14	13 14	13 15	15 0	15 0	17 0	21 10 24	8 29	11	.. ..	.. ..	.. ..		
Cuddapah . . . .	12 14	12 14	18 8	.. ..	.. ..	.. ..	12 0	12 6	11 14	13 5	13 5	18 11	29 3 28	8 28	13 31	8 31	8 31	1		
Anantapur . . . .	13 6	13 6	13 11	.. ..	.. ..	.. ..	11 13	11 13	12 13	12 5	12 5	15 2	30 1 18	18 30	14 30	2 20	2 20	8 26		
Bellary . . . .	17 5	16 5	16 5	.. ..	.. ..	.. ..	11 13	11 13	12 5	13 0	13 0	18 3	47 0 27	2 27	2 25	0 80	2 28	8 26		
Kurnool . . . .	13 2	12 2	12 11	.. ..	.. ..	.. ..	10 10	10 10	10 10	11 0	11 0	11 6	47 0 45	10 31	8 31	14 31	8 32	8 32		
Madras . . . .	11 5	11 5	9 18	.. ..	.. ..	.. ..	13 8	13 8	13 8	16 2	16 2	16 2	22 5 22	5 23	0 23	18 23	19 25	.. ..		
Chingleput . . . .	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	13 8	13	14 10	15 2	15 2	15 14	.. ..	.. ..	.. ..	31 10 31	5 31	5 29		
North Arcot . . . .	9 11	8 11	9 5	.. ..	.. ..	.. ..	13 8	13	14 11	16 14	16 14	16 14	.. ..	.. ..	.. ..	33 10 30	8 28	8 26		
South Arcot . . . .	9 6	9 6	9 6	.. ..	.. ..	.. ..	13 14	13 14	15 11	14 14	14 14	16 8	33 6 31	0 31	18 48	0 31	19 48	.. ..		
Tanjore . . . .	11 13	11 18	8 18	.. ..	.. ..	.. ..	17 13	17 13	15 13	16 11	16 11	14 14	33 10 30	18 25	9 30	8 30	8 30	8 25		
Trichinopoly . . . .	9 10	8 10	8 8	.. ..	.. ..	.. ..	15 13	15 13	14 14	16 0	16 0	14 18	28 1 18	8 21	14 21	0 32	5 32	5 32		
Madura . . . .	12 8	12 8	12 0	.. ..	.. ..	.. ..	15	16	0 14	16 0	16 0	15 15	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		
Tiruvelly . . . .	10 10	10 10	8 0	.. ..	.. ..	.. ..	10 6	16	5 15	16 6	16 13	15 15	27 19 27	18 24	5 30	3 27	19 28	1		
Ceilambatore . . . .	13 2	13 2	11 8	.. ..	.. ..	.. ..	14 6	14 6	18 8	15 6	15 6	14 14	20 0 21	10 20	0 21	0 19	10 18	.. ..		
Nilgiri . . . .	10 10	10 10	7 2	.. ..	.. ..	.. ..	11 8	11 8	9 10	12 0	12 0	11 3	20 1 18	18 27	5 28	8 27	8 28	8 28		
Salem . . . .	12 11	12 11	10 3	.. ..	.. ..	.. ..	14 0	14 10	13 2	14 11	15 16	12 2	33 1 18	18 27	5 28	8 27	8 28	8 28		
South Canara . . . .	7 11	7 11	8 10	.. ..	.. ..	.. ..	8 11	8 11	8 11	12 3	12 3	3 11 13	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		
Malabar . . . .	8 10	8 10	7 14	.. ..	.. ..	.. ..	15	15	0 18	18 15	16 3	16 13	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		
MUMBAI	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.		
Bombay . . . .	10 0	10 5	10 1	16 5	21 4	18 9	7 5	7 5	7 7	7 10	11 8	12 1	10 7	17 14 18	5 20	10 15	15 14	10 14	1	
Ahmedabad . . . .	12 0	11 0	14 8	19 0	19 8	20 0	20 0	20 0	20 0	20 0	18 0	18 0	18 0	14 6 14	0 17	8 20	0 14	0 16	.. ..	
Karwar . . . .	10 10	11 0	11 13	20 0	20 0	20 0	9 11	9 11	10 0	18 5	18 5	18 5	18 12	19 2 19	2 15	9 14	0 14	0 14	1	
Burat . . . .	11 4	11 4	12 12	12 4	12 4	7 11	7 6	7 6	8 8	8 8	8 5	8 5	8 12	19 2 19	1 12	12 13	0 15	0 15	.. ..	
Bycche . . . .	12 4	12 4	13 6	13 6	13 6	.. ..	9 15	10 0	11 1	12 12	11 7	12 12	18 1	18 10 18	10 18	10 18	0 15	0 15	.. ..	
Tantra (Salsette) . . . .	9 12	9 12	10 5	.. ..	.. ..	.. ..	7 13	7 13	8 3	8 3	8 2	8 2	10 0	18 10 18	10 18	10 18	0 15	0 15	.. ..	
Colaba (Alibag) . . . .	8 8	8 8	8 8	.. ..	.. ..	.. ..	7 8	7 8	6 12	12 0	12 8	18 5	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		
Khandesh (Bhima) . . . .	14 0	14 0	15 0	.. ..	.. ..	.. ..	7 9	7 9	7 7	10 4	10 4	10 15	16 14 16	14 28	18 14	4 19	1	.. ..		
Nasik . . . .	14 4	14 4	14 4	.. ..	.. ..	.. ..	7 7	7 7	7 7	7 7	7 7	13 6	12 0	24 6	.. ..	15 6 15	5 19	1		
Ahmednagar . . . .	13 4	14 6	14 6	.. ..	.. ..	.. ..	8 6	8 6	9 10	9 11	10 0	11 0	11 4	10 11 19	9 25	0 17	2 18	2 19	.. ..	
Poona . . . .	12 10	11 11	12 10	9 4	9 4	.. ..	9 19	9 19	11 11	11 0	11 0	12 4	20 11 19	9 25	0 17	2 18	2 19	.. ..		
Sholapur . . . .	14 10	15 6	13 9	.. ..	.. ..	.. ..	10 6	11 11	10 5	14 4	12 4	11 5	27 10 28	14 26	4 32	15 23	6 27	.. ..		
Kaladgi (Bengaluru) . . . .	19 6	19 8	22 0	16 8	16 0	14 8	6 8	6 8	6 8	8 8	8 8	9 0	31 0 28	5 28	0 25	0 26	0 26	0 26		
Batara . . . .	18 6	12 6	12 1	.. ..	.. ..	.. ..	8 14	8 14	9 11	11 7	11 7	11 7	29 0 19	5 26	10 16	2 18	12 22	.. ..		
Balgach . . . .	16 8	16 8	19 0	14 8	14 8	18 0	11 8	11 8	9 13	12 0	11 11	10 5	17 8 17	0 27	.. ..	19 0 18	0 24	0 24	.. ..	
Dharwar (Hubli) . . . .	23 0	23 0	23 0	.. ..	.. ..	.. ..	13 0	13 0	12 0	16 0	16 0	18 0	25 0 24	0 29	0 24	0 24	0 24	0 24		
Istungam . . . .	9 4	9 4	10 9	.. ..	.. ..	.. ..	8 0	8 0	9 7	13 4	13 7	13 7	12 11	.. ..	.. ..	18 8 18	0 14	0 14	.. ..	
Kavur (Harwar) . . . .	9 0	9 0	10 8	.. ..	.. ..	.. ..	6 0	8 0	8 0	12 0	12 0	12 0	12 11	4 11	0 10	16 0	0 16	0 16	.. ..	
Panch Mahals (Gondwana) . . . .	10 8	11 11	11 11	.. ..	.. ..	.. ..	11 8	11 8	11 8	13 5	13 5	15 0	21 0 22	18 22	0 12	18 16	0 16	0 16	.. ..	
Agdu . . . .	7 0	7 0	8 0	.. ..	.. ..	.. ..	6 8	6 8	6 8	7 0	7 0	7 0	12 7 12	7 9	5 11	3 11	3 11	3 11	.. ..	
Asargur . . . .	13 12	13 12	14 0	.. ..	.. ..	.. ..	11 14	12 0	10 15	14 0	14 0	12 4	17 9 18	0 31	5 17	12 17	12 23	.. ..	.. ..	
Bareo . . . .	8 6	5																		

OF INDIA

ANCE AND COMMERCE.

INDIA FOR THE 3RD HALF OF AUGUST 1883.

## IN SEEKERS OF 50 TOLAHs.

—Gained 10 more and Counted 20 more.  
—Gained 10 more and estimated 14 more.

## PRICES CURRENT OF FOOD-GRAINS THROUGHOUT

DISTRICTS.													QUANTITIES PER RUPEE													
	Wheat.						Barley.						Rice (best sort).			Rice (common)			Great Millet (Cholam, Jowar), House Corn.			Bairach Millet (Cumme, Bajra), Pennisetaria Spicata				
	Present fortnight.			Corresponding fort. night of 1882.			Present fortnight.			Corresponding fort. night of 1882.			Present fortnight.			Corresponding fort. night of 1882.			Present fortnight.			Corresponding fort. night of 1882.				
	s. Ch.	rs. Ch.	s. Ch.	s. Ch.	rs. Ch.	s. Ch.	s. Ch.	rs. Ch.	s. Ch.	s. Ch.	rs. Ch.	s. Ch.	s. Ch.	rs. Ch.	s. Ch.	s. Ch.	s. Ch.	rs. Ch.	s. Ch.	s. Ch.	s. Ch.	rs. Ch.	s. Ch.	s. Ch.		
<b>Central Provinces</b>																										
Central P. S. - Calcutta	15	6	14	9	11	0	20	10	19	■	26	8	10	12	10	12	10	0	16	0	16	0	20	0	23	0
Calcutta	13	6	13	5	12	5	17	12	16	0	20	0	8	0	8	0	10	0	14	0	16	0	16	0	16	0
Calcutta - Pergunnah	14	8	14	8	13	14	23	15	..	..	..	..	15	4	15	4	15	4	17	4	17	4	18	13	..	..
Nuddea	12	4	13	4	13	4	..	..	..	..	..	..	16	0	16	0	16	0	23	■	23	0	22	0	..	..
Khowla	12	4	13	4	13	4	..	..	..	..	..	..	16	0	16	0	18	0	21	4	21	4	24	9	..	..
Jessore	12	4	13	4	13	4	..	..	..	..	..	..	16	0	16	0	18	0	21	4	21	4	24	9	..	..
Morshedabad	15	0	15	0	14	8	..	..	..	..	..	..	15	0	14	0	14	8	22	0	20	0	21	0	..	..
Dinapore	16	0	16	0	13	0	17	8	17	8	14	8	18	0	18	0	19	4	20	0	20	0	23	8	..	..
Rajshahi	15	4	15	4	13	■	29	0	34	0	33	12	{ to	{ to	{ 13	8	{ 20	0	{ 18	0	{ 20	0	{ 20	0	..	..
Rangpore	13	6	13	5	16	0	..	..	..	..	..	..	13	5	12	3	15	0	19	0	18	0	23	0	..	..
Bogra	15	0	15	0	18	0	..	..	..	..	..	..	12	0	12	0	15	12	22	8	21	0	28	2	..	..
Pabna	16	12	16	12	13	0	..	..	..	..	..	..	8	3	8	8	10	0	18	12	18	12	24	0	..	..
Darjeeling	6	0	8	0	10	0	8	0	8	0	10	0	5	3	4	0	5	0	13	0	12	0	13	0	..	..
Jalpaiguri	10	0	10	0	16	0	20	0	20	0	20	0	12	8	13	0	14	0	16	0	20	0	..	..	..	..
<b>Eastern Provinces</b>																										
E. P. S. - Dacca	13	5	12	8	13	14	23	12	23	■	32	0	17	12	18	■	21	4	20	■	23	0	26	10	..	..
Dacca	21	0	21	0	22	0	30	0	30	0	30	0	18	0	18	0	20	0	21	0	20	0	26	8	..	..
Faridpur	21	0	21	0	22	0	30	0	30	0	30	0	18	0	18	0	19	0	21	0	21	0	23	0	..	..
Backergunge	11	6	11	8	10	0	..	..	..	..	..	..	14	5	15	0	22	8	20	0	19	0	28	0	..	..
Mymeraung	11	4	8	0	8	0	..	..	..	..	..	..	18	0	13	0	16	0	18	0	18	0	26	0	..	..
Chittagong	11	12	12	4	11	8	..	..	..	..	..	..	18	12	17	4	20	12	22	12	21	12	22	12	..	..
Noskhali	11	12	12	4	11	8	..	..	..	..	..	..	12	5	12	4	13	5	13	4	13	4	17	12	..	..
Tipperah	10	0	10	0	11	0	..	..	..	..	..	..	15	0	16	0	20	0	20	0	20	0	23	0	..	..
Chittagong Hill Tracts	10	0	10	0	11	0	..	..	..	..	..	..	15	0	16	0	20	0	20	0	20	0	23	0	..	..
Hill Tipperah	10	0	10	0	11	0	..	..	..	..	..	..	15	0	16	0	20	0	20	0	20	0	23	0	..	..
<b>Bihar.</b>																										
Bihar - Patna	21	0	19	0	38	8	26	0	25	0	34	0	16	0	14	0	13	0	15	8	16	0	22	0	..	..
Gaya	17	8	18	8	16	■	23	0	24	0	24	0	12	0	12	0	12	8	14	0	15	0	18	8	..	..
Gaya	16	0	15	0	15	0	..	..	..	..	..	..	11	0	10	0	16	0	14	0	15	0	18	0	..	..
Shahabad	16	0	16	0	16	0	..	..	..	..	..	..	12	0	12	0	18	0	16	0	16	0	19	0	..	..
Durkhunga	16	0	16	8	15	0	..	..	..	..	..	..	12	8	13	0	14	0	16	0	16	0	16	0	..	..
Moraijpur	17	0	18	0	16	0	30	0	30	0	30	0	12	0	12	0	12	0	15	0	16	0	16	0	16	0
Burun	16	0	17	0	16	8	25	0	26	0	27	0	10	0	10	0	9	8	18	0	19	0	20	0	26	0
Champaran	19	0	19	0	18	0	32	0	32	0	31	0	13	0	13	0	12	0	17	0	17	0	18	8	..	..
Mohagr	18	13	18	10	16	12	23	1	26	4	28	5	12	9	13	10	16	12	15	12	16	3	18	14	..	..
Bhagalpur	16	12	16	6	14	8	21	0	20	4	27	14	15	2	15	9	17	11	17	10	17	10	18	15	..	..
Purulia	17	0	17	0	14	■	..	..	..	..	..	..	16	0	16	0	20	0	18	0	18	0	24	0	..	..
Maldah	17	0	17	8	16	0	..	..	..	..	..	..	15	0	15	0	16	0	20	0	18	0	20	0	..	..
South-Western Divisions Agency	12	0	12	0	12	8	..	..	..	..	..	..	17	0	16	0	16	0	24	0	28	0	26	0	..	..
Hazaribagh	14	0	15	0	12	8	21	0	20	0	20	0	9	0	9	0	10	0	15	0	15	8	16	0	..	..
Lohardaga	16	0	15	0	16	0	20	0	20	0	20	0	18	0	18	0	20	0	22	0	22	0	22	0	..	..
Singhbhum	18	0	18	0	18	0	24	0	24	0	26	0	32	0	32	0	38	0	38	0	38	0	40	0	..	..
Magadha	13	0	13	0	12	0</td																				

**INDIA FOR THE 2nd HALF OF AUGUST 1888—continued.**

IN SEERS OF 50 TOLARS.

\* Results given of melt at 150°C by Kondo and Hidematsu and Ochiai (1969) & Matsuo

**2** Retail price of suit at Department is 10 years, and Department and  
**3** in the interior retail price of suit range from 6 to 11-1 years.

or the sub-district rates of rent are as follow :—Brahmapurish 13 annas, and Chandpore 12-5 annas.

In Province several groups of until 10 years

In these bid-advances record prices of mail were as follows:—Bengal 11-8 seers, Mysore 11 seers, and Shubroon 10-8 seers. In the sub-advances usual prices of mail were as follows:—Madras 10 seers, and Tajpur 11-8 seers.

In the higher rainfall zones of melt range from 10-5 to 1.2 years.

The present-day prices of salt are as follows:- Tigran 11-6 rupees, and Gopalganj 13 rupees. The former retail price of salt ranges from 10 to 13-4 rupees.

The following table gives the estimated portion of salt now in foreign countries, and the estimated portion of salt now in foreign countries.

The study of various related portions of salt, here we find the evidence of the original action of salt upon the soil.

the new administration's fiscal actions of 1977 will further erode prices of oil products.

With the exception of the first two, we made 223 observations.

The Department of Health and Welfare has issued a new  
Circular Letter which will supersede Circular Letter 10, May,

19. *Leucosia* *leucostoma* *leucostoma* *leucostoma* *leucostoma*

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## PRICES CURRENT OF FOOD-GRAINS THROUGHOUT

QUANTITIES PER RUPA

Districts	Wheat.				Barley.				Rice (best sort).				Rice (common).				Great Millet (Coccum, cowpea). Harees Sorghum.				Rajash Millet (Gumbo, Bairi). Pennisetum Glaucum.			
	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.	Present fortnight.	Past fortnight.	Corresponding fortnight of 1882.
Sylhet . . .	12 0 11 0	10 6	—	10 0	11 0	14 0	17 0	16 0	23 0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cachar . . .	9 2 9 2	8 11	12 33	12 13	—	—	12 13	10 13	16 13	16 0	17 12	21 0	—	—	—	—	—	—	—	—	—	—	—	—
Gauhati . . .	20 0 20 0	12 0	12 0	—	—	—	14 4	13 0	18 0	22 0	21 0	20 0	—	—	—	—	—	—	—	—	—	—	—	—
Garo Hills . . .	4 0 3 0	4 0	4 0	—	—	—	5 0	5 0	5 0	17 0	15 8	18 0	—	—	—	—	—	—	—	—	—	—	—	—
Kamrup . . .	18 0 18 0	20 0	20 0	—	—	—	18 4	11 12	13 0	17 0	15 8	18 0	—	—	—	—	—	—	—	—	—	—	—	—
Darrang . . .	—	—	—	—	—	—	8 0	8 0	10 0	13 0	13 0	16 0	—	—	—	—	—	—	—	—	—	—	—	—
Newgong . . .	—	—	—	—	—	—	8 0	9 0	8 0	16 0	13 0	16 4	—	—	—	—	—	—	—	—	—	—	—	—
Sibsagar . . .	8 0 8 0	8 0	8 0	7 0	7 0	10 0	6 0	6 0	8 0	14 0	16 0	14 0	—	—	—	—	—	—	—	—	—	—	—	—
Lakshimpur . . .	—	—	—	—	—	—	8 0	6 0	8 0	11 0	11 0	16 0	—	—	—	—	—	—	—	—	—	—	—	—
Khasi & Jaintia Hills . . .	8 0 8 0	6 10	8 0	7 0	7 0	10 0	6 10	9 0	9 0	9 0	10 0	10 0	—	—	—	—	—	—	—	—	—	—	—	—
Naga Hills . . .	—	—	—	—	—	—	4 0	4 0	5 0	5 0	5 0	8 0	—	—	—	—	—	—	—	—	—	—	—	—
Assam Dibrugarh . . .	17 8 17 0	18 0	24 0	26 0	27 0	6 0	6 8	6 8	6 0	10 0	11 0	11 0	22 0	24 0	24 0	26 0	22 0	22 0	22 0	22 0	22 0	22 0	22 0	22 0
Sukraunpur . . .	17 3 18 4	20 7	23 10	27 15	32 4	7 8	7 8	7 8	9 11	11 13	11 13	12 14	29 0	29 0	29 0	21 0	21 0	21 0	21 0	21 0	21 0	21 0	21 0	21 0
Misamisgarh . . .	17 10 17 10	18 15	25 11	30 12	28 11	6 9	6 9	6 9	6 9	12 2	12 2	12 2	24 6	30 12	28 0	22 0	22 0	22 0	22 0	22 0	22 0	22 0	22 0	22 0
Meerut . . .	17 0 17 0	18 0	8 25	27 0	26 0	6 8	6 8	6 8	6 8	14 0	14 0	14 0	26 0	27 0	27 0	19 0	20 0	21 0	21 0	21 0	21 0	21 0	21 0	
Bulandshahr . . .	18 0 17 8	19 12	26 0	26 0	26 12	6 0	6 0	6 0	6 0	10 0	10 0	10 0	10 6	16 6	16 6	16 6	16 6	16 6	16 6	16 6	16 6	16 6	16 6	
Ajigurh . . .	17 0 17 0	18 0	23 8	23 8	23 8	6 7	6 7	6 7	6 7	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	
Lumna . . .	16 0 15 0	17 0	18 0	18 0	18 0	10 0	10 0	10 0	10 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	
Gorakhpur . . .	20 0 20 0	21 0	22 0	22 0	22 0	24 0	24 0	24 0	24 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	
Rajnur . . .	18 4 16 14	17 7	28 28	26 7	27 0	9 4	9 4	9 4	9 4	10 11	12 12	12 12	12 12	20 11	21 6	21 6	20 20	21 6	21 6	21 6	21 6	21 6	21 6	21 6
Boradabat . . .	19 1 18 7	18 7	27 8	29 6	29 6	2 2	2 2	2 2	2 2	12 12	12 12	12 12	12 12	26 14	26 14	26 14	26 14	26 14	26 14	26 14	26 14	26 14	26 14	
Budunn . . .	18 14 17 11	17 6	27 9	25 3	25 3	2 2	2 2	2 2	2 2	13 12	13 12	13 12	13 12	23 12	23 12	23 12	23 12	23 12	23 12	23 12	23 12	23 12	23 12	
Bareilly . . .	18 12 17 8	16 14	25 0	21 6	21 6	7 11	7 12	7 12	7 12	13 13	13 13	13 13	13 13	20 12	21 8	21 8	20 20	20 12	20 12	20 12	20 12	20 12	20 12	20 12
Shahjahanpur . . .	19 4 10 0	18 8	31 0	31 0	31 0	12 12	12 12	12 12	12 12	14 14	14 14	14 14	14 14	20 11	21 5	21 5	20 20	21 5	21 5	21 5	21 5	21 5	21 5	21 5
Tirai Perganah . . .	23 0 21 0	21 0	36 0	35 0	35 0	30 0	30 0	30 0	30 0	13 13	13 13	13 13	13 13	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	
Butura . . .	15 8 15 8	17 17	8 17	8 17	8 17	7 0	7 0	7 0	7 0	11 11	11 11	11 11	11 11	20 10	21 4	21 4	20 20	21 4	21 4	21 4	21 4	21 4	21 4	21 4
Agra . . .	15 8 15 4	17 6	21 1	21 1	21 1	12 12	12 12	12 12	12 12	13 13	13 13	13 13	13 13	23 12	23 12	23 12	23 12	23 12	23 12	23 12	23 12	23 12	23 12	
Burukhbad . . .	17 5 17 10	17 9	22 14	22 14	22 14	14 24	14 24	14 24	14 24	15 15	15 15	15 15	15 15	25 14	25 14	25 14	25 14	25 14	25 14	25 14	25 14	25 14	25 14	
Maisupuri . . .	16 8 16 4	19 0	22 0	22 0	22 0	22 0	22 0	22 0	22 0	12 12	12 12	12 12	12 12	20 11	21 6	21 6	20 20	21 6	21 6	21 6	21 6	21 6	21 6	
Itanagar . . .	16 0 15 0	18 0	22 0	22 0	22 0	20 20	20 20	20 20	20 20	12 12	12 12	12 12	12 12	25 11	26 16	26 16	25 25	26 16	26 16	26 16	26 16	26 16	26 16	
Itanagar . . .	16 0 15 0	18 0	22 0	22 0	22 0	20 20	20 20	20 20	20 20	12 12	12 12	12 12	12 12	25 11	26 16	26 16	25 25	26 16	26 16	26 16	26 16	26 16	26 16	
Itanagar . . .	16 0 15 0	18 0	22 0	22 0	22 0	20 20	20 20	20 20	20 20	12 12	12 12	12 12	12 12	25 11	26 16	26 16	25 25	26 16	26 16	26 16	26 16	26 16	26 16	
Itanagar . . .	16 0 15 0	18 0	22 0	22 0	22 0	20 20	20 20	20 20	20 20	12 12	12 12	12 12	12 12	25 11	26 16	26 16	25 25	26 16	26 16	26 16	26 16	26 16	26 16	
Itanagar . . .	16 0 15 0	18 0	22 0	22 0	22 0	20 20	20 20	20 20	20 20	12 12	12 12	12 12	12 12	25 11	26 16	26 16	25 25	26 16	26 16	26 16	26 16	26 16	26 16	
Itanagar . . .	16 0 15 0	18 0	22 0	22 0	22 0	20 20	20 20	20 20	20 20	12 12	12 12	12 12	12 12	25 11	26 16	26 16	25 25	26 16	26 16	26 16	26 16	26 16	26 16	
Itanagar . . .	16 0 15 0	18 0	22 0	22 0	22 0	20 20	20 20	20 20	20 20	12 12	12 12	12 12	12 12	25 11	26 16	26 16	25 25	26 16	26 16					

**INDIA FOR THE 2nd HALF OF AUGUST 1883—continued.**

**N SEERS OF 80 TOLANS.**

(1) Wood-based fiber, bamboo, former and green stains, and finishes.

(e) Price steady;

**PRICES CURRENT OF FOOD-GRAINS THROUGHOUT**

**QUANTITIES PER RUPEE**

(e) Price rising except that of

(ii) Wholesome, bright, joyful, green and soft lighting.

10. *Leucosia* *leucostoma* *leucostoma* *leucostoma*

(c) Prices rising except that of salt (detail.) (4)

Wheat, barley, rice, grain, oil and charcoal.

Wilson, brother, sister, brother, sister and son, son-in-law, son-in-law.

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## PRICES CURRENT OF FOOD-GRAINS THROUGHOUT

Provinces.	Districts	QUANTITIES PER RUPEE																													
		Wheat.			Barley.			Rice (best sort).			Rice (common).			Great Millet (Cholam, Jowari, Haleem, Sorghum).			Bulrush Millet (Cumbuco, Bajra), Pennisetaria Species.														
		Present fortnight.	Past fortnight.	Corresponding fort- night of 1882.	Present fortnight.	Past fortnight.	Corresponding fort- night of 1882.	Present fortnight.	Past fortnight.	Corresponding fort- night of 1882.	Present fortnight.	Past fortnight.	Corresponding fort- night of 1882.	Present fortnight.	Past fortnight.	Corresponding fort- night of 1882.	Present fortnight.	Past fortnight.	Corresponding fort- night of 1882.	Present fortnight.	Past fortnight.	Corresponding fort- night of 1882.									
Mysore	Bangalore	5	Cb	S. Ch.	S. Ch.	S. Ch.	b. Ch.	S. Ch.	b. Ch.	S. Ch.	S. Ch.	b. Ch.	S. Ch.	S. Ch.	b. Ch.	S. Ch.	S. Ch.	b. Ch.	S. Ch.	S. Ch.	b. Ch.	S. Ch.	S. Ch.								
	Kelay	.	.	.	No return received	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
	Tumkfr	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
	Mysore	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
	Hassan	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
	Shimoga	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
	Kudur	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
Coorg	Chitradroog	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
	Coorg	8	7	9 10	8 14	9 10	9 11	8	6	13 11	13 11	10 13	18	9	18	6	18	8	...	...	...	...	...	...	...						
	Jeyapore	16	8	16	0	16	0	21	0	20	0	12	0	6	0	6	0	8	8	9	0	20	0 20	0 20	0 19						
	Kishengarh	16	4	17	8	17	0	20	0	23	8	24	8	9	0	8	0	10	0	10	19	8 25	4 24	0 14	8 17	12 20					
	Kerrowlee	.	15	10	16	0	*	19	11	18	8	*	11	14	12	8	*	12	8	13	8	*	19	11 19	0	17	8 16				
	Ulwar	16	4	14	2	19	1	20	9	24	10	26	3	8	10	8	10	8	11	0	11	14	21	12	23	8 13	8 19	4 22	6 19		
	Blantyre (City)	16	0	16	5	17	8	22	9	23	11	23	8	7	12	6	8	9	6	9	12	11	0	20	0 20	0 23	0 21	0 17			
Rajputana	Ajmer	14	8	13	8	15	8	20	8	19	8	23	0	5	0	5	0	8	0	8	0	8	0	10	0 14	0	0 16	0 17			
	Deoli Canttment	16	1	18	11	16	1	22	15	25	9	20	6	.	.	.	13	0	13	0	10	8	22	0 24	13 20	0 18	0 18	0 20			
	Eripura	13	12	16	9	16	12	20	12	25	4	23	9	.	.	.	7	13	8	0	8	0	19	0 20	0 21	9 17	10 20	0 24			
	Sirohi	11	4	13	4	17	0	22	0	23	0	28	0	6	8	7	0	7	0	7	8	8	0	14	0 18	0 17	0 15	0 18	0 21		
	Abu	11	0	11	6	16	10	17	10	20	0	23	0	6	6	6	8	6	8	7	4	8	0	.	.	13	2 15	8 18			
	Anadra	12	2	12	8	17	12	20	14	23	11	26	0	6	14	7	0	7	0	7	11	8	0	9	0	.	14	8 17	4 20		
	Milly Tracts of Mewar	16	0	19	0	20	0	24	0	27	0	24	0	.	.	.	13	0	15	0	19	0	.	.	.	.	.	.	.	.	
Mewar (Oodeypora)	Mewar (Oodeypora)	13	7	14	1	15	8	17	16	19	22	19	14	9	0	10	24	10	21	.	.	.	.	.	.	.	.	.			
	Bikanerwara (Mewar Agency)	20	0	21	14	21	14	.	.	.	10	0	10	0	10	0	17	8	17	8	17	8	.	.	.	.	.	.	.		
	Patidgadh (")	17	15	15	12	17	10	.	.	.	9	6	10	0	10	0	10	10	11	4	12	13	.	.	.	.	.	.	.		
	Bharwar (Jodhpore)	12	12	14	11	16	4	17	8	20	0	21	1	6	4	6	4	6	4	7	8	7	8	7	8	18	12	18	12	22	
	Bikaner	9	5	10	12	12	0	.	.	.	3	6	3	8	3	4	5	12	5	12	7	42	.	.	.	.	15	8 18	9 19	.	.
	Beonree	19	4	19	8	16	8	36	0	27	8	27	0	8	8	8	0	10	0	9	0	10	8	27	0 25	0 26	8	.	.		
	Kotah	20	0	22	0	16	12	25	0	26	0	18	5	8	0	10	0	8	12	11	0	13	0	11	0	23	0 23	0 22	0 12	8 14	8 15
Gujarat	Lok	17	0	17	3	13	7	23	8	23	0	21	6	6	0	6	0	7	0	8	0	8	0	9	4	4	0 23	12 23	5	.	18
	Jhalawar	16	1	19	1	15	4	20	14	28	10	15	14	.	.	.	7	14	8	14	10	3	21	14 23	0 19	1 17	1 17	1 17	1 17		
	Shapooria	15	8	18	4	16	0	19	0	24	3	20	6	10	8	11	2	11	2	15	4	16	4	14	8	19	2 18	0 15	0 16	0 16	0 16
	Dholpur	15	6	16	12	16	10	21	11	24	4	20	4	10	2	10	0	7	14	11	4	11	4	11	12	21	12 20	3	5 21	1 17	1
	Indore	14	8	14	8	15	8	.	.	.	9	3	9	8	8	9	10	14	10	14	10	0	20	0 20	13 20	15 19	7 19	8 20	.	.	
	Gwalior	15	0	15	11	15	11	21	8	22	3	18	12	7	6	7	9	7	11	9	2	8	2	9	18	11	15 23	1 19	12 18	12 18	10 19
	Groote	11	4	20	4	20	4	20	0	20	0	19	0	9	0	10	0	9	8	9	8	10	0	10	0	12	0 30	0 24	0 20	0 20	0 18
Kashmir	Baghelkhand (Contd.)	22	4	21	0	21	0	26	12	28	7	32	0	7	0	7	0	8	0	17	N	18	0	18	0	15	0 38	13 23	0 30	0 23	0 21

\* Not received.

DEPARTMENT OF FINANCE AND COMMERCE,

(Statistical Branch.)

**INDIA FOR THE 2nd HALF OF AUGUST 1888—concluded.**

IN SEENS OF SO TOLANG.

**\* Right now our trouble-**

D. BARBOUR,  
*Secretary to the Government of India.*

## GOVERNMENT OF INDIA.

## DEPARTMENT OF FINANCE AND COMMERCE.

*Comparative Statement of the Net Indian Sea and Land Custom Revenue (excluding Salt Revenue) for the first five months of the official year 1883-84, and of the last preceding year.*

(In THOUSANDS OF RUPEES)

FOR THE FIVE MONTHS, APRIL TO AUGUST.

YEAR.	Bengal.				Bihar.				Madras.				Baroda.				Central India.				Total Baroda India		YEAR.			
	On Imports of Other Liquors	On Exports	Total Revenue	On Imports of Liquors	On Imports of Other Liquors	On Exports	Total Revenue	On Imports of Liquors	On Imports of Other Liquors	On Exports	Total Revenue	On Imports of Liquors	On Imports of Other Liquors	Total Revenue	On Imports of Liquors	On Imports of Other Liquors	Total Revenue	Import Refund- ance	Total Revenue	Import Refund- ance	Total Revenue	Import Refund- ance				
	On Imports of Liquors	On Exports	Total Revenue	On Imports of Liquors	On Imports of Other Liquors	On Exports	Total Revenue	On Imports of Liquors	On Imports of Other Liquors	On Exports	Total Revenue	On Imports of Liquors	On Imports of Other Liquors	Total Revenue	On Imports of Liquors	On Imports of Other Liquors	Total Revenue	Import Refund- ance	Total Revenue	Import Refund- ance	Total Revenue	Import Refund- ance				
1871-72.	4,48	28,91	8,81	42,20	3,47	14,29	1,58	19,34	49	37	54	1,40	1,45	6,22	6,37	12,97	69	1,70	8,54	10,93	10,58	50,49	61,07	25,77	86,84	1871-72.
1872-73.	5,06	28,14	9,04	42,89	2,23	16,63	1,36	19,21	47	38	89	1,74	1,66	5,03	4,98	11,67	1,91	16,41	19,68	11,38	51,09	62,47	32,66	95,13	1872-73.	
1873-74.	4,20	28,20	6,75	39,15	2,64	13,97	1,88	17,89	51	25	48	1,24	1,58	5,50	6,25	13,53	1,37	1,83	13,09	16,34	10,20	49,50	60,00	27,95	87,95	1873-74.
1874-75.	4,86	31,23	5,16	41,95	2,69	16,55	1,49	20,73	63	25	56	1,24	1,45	5,95	6,64	13,04	1,76	2,70	9,16	18,61	11,38	56,68	68,06	22,01	90,07	1874-75.
1875-76.	5,38	32,25	6,67	44,90	2,78	16,79	3,37	22,04	52	35	85	1,72	1,59	6,11	6,24	14,14	1,45	1,61	16,41	19,57	11,82	57,31	69,13	33,54	1,02,67	1875-76.
1876-77.	5,56	25,98	4,83	36,37	3,49	13,84	48	17,61	67	25	91	2,16	5,56	9,31	11,83	1,99	3,16	11,62	15,96	14,07	47,58	61,65	21,03	82,68	1876-77.	
1877-78.	6,21	32,73	4,94	43,88	3,74	16,84	49	21,07	93	30	15	1,37	2,27	3,25	73	6,25	2,10	3,24	9,24	13,68	15,24	55,36	70,60	15,55	86,15	1877-78.
1878-79.	6,69	37,50	6,65	58,77	3,49	15,06	85	19,42	81	20	10	1,11	2,43	4,14	4,80	8,97	3,21	2,77	11,94	17,92	15,66	49,69	65,25	20,34	85,59	1878-79.
1879-80.	4,88	24,46	4,89	32,73	3,70	12,70	80	17,20	1,21	33	8	1,62	2,20	3,59	3,12	7,91	2,96	2,36	15,59	20,91	1,15	43,44	58,39	21,98	80,37	1879-80.
1880-81.	6,51	23,25	5,93	33,70	3,63	17,23	69	21,45	1,77	42	9	2,98	2,03	4,35	4,16	10,51	2,07	3,02	16,66	21,75	14,92	48,27	63,19	25,53	88,72	1880-81.
1881-82.	6,69	23,43	6,93	35,06	4,25	16,54	65	21,44	1,60	54	■	2,27	2,15	4,29	2,85	9,29	3,01	2,08	25,99	16,59	47,51	64,40	29,64	94,04	1881-82.	
1882-83.	6,94	1	6,26	12,25	4,36	-89*	65	3,94	1,89	9	■	1,63	2,23	1	1,78	4,72	3,48	9	25,34	28,85	17,45	-90*	16,55	34,13	50,66	1882-83.
1883-84.	6,97	4	7,32	13,33	4,47	17	45	6,09	1,59	1	10	1,70	2,19	9	2,40	4,02	3,85	8	18,33	21,76	17,46	33	17,51	28,69	46,60	1883-84.

\* The amount refunded is greater than the duty collected.

## DEPARTMENT OF FINANCE AND COMMERCE,

STATISTICAL BRANCH;  
GOVT. STAT. DEPT. 1886.

D. BARBOUR,

Secretary to the Government of India.

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.

STATEMENTS OF IRRIGATION OPERATIONS OF KHARIF OF 1882-83 IN THE PUNJAB.

STATEMENT No. I.

*Revised Comparative Abstract of Irrigation and Rainfall in Canal Districts of the Punjab.*

DISTRICTS.	Area in acres.	Cultivated area in acres.	AREA IRRIGATED.		COMPARISON WITH LAST CROP.		RAINFALL IN KHARIF MONTHS.														
			1882-83.	1881-82.	Increase.	Decrease.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	TOTAL.		
			1882-83.	1881-82.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882-83.	1881-82.			
Umballa . . . . .	1,554,746	861,860	8,786	8,287	511	...	0.16	0.40	0.30	1.85	0.00	2.35	17.90	8.17	11.08	11.20	2.70	3.00	40,14	27.79	
Karnal . . . . .	1,539,940	880,312	29,045	24,367	2,728	...	1.67	0.21	0.64	0.74	2.67	2.71	8.20	1.78	2.67	4.05	10.40	20.54	12.80	19.76	
Rohitak . . . . .	1,159,850	906,022	35,581	32,626	3,906	...	0.15	0.20	2.40	3.10	6.50	10.70	2.80	5.70	3.20	...	...	...	12.90	21.40	
Delhi . . . . .	864,938	558,676	84,300	84,284	1,336	...	0.20	0.60	0.10	2.40	2.62	12.20	11.50	3.80	8.80	4.50	5.50	16.90	23.40	15.20	14.80
Hissar . . . . .	2,205,438	1,161,781	33,919	34,203	...	5,044	9.10	1.20	...	0.30	0.40	12.20	7.60	0.80	5.90	3.10	4.30	19.10	25.80	15.20	14.80
Jind . . . . .	...	231	...	1,287	...	17	...	1.00	1.20	3.00	1.20	16.90	9.20	0.80	5.30	1.50	...	...	...	...	...
Bikaner . . . . .	...	...	...	231	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>TOTAL W. J. CANAL</b>	<b>7,406,540</b>	<b>4,216,849</b>	<b>172,763</b>	<b>167,721</b>	<b>11,470</b>	<b>8,447</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	
Gurdaspur . . . . .	1,168,314	866,150	18,612	17,663	1,550	...	0.40	0.18	...	0.95	0.61	7.61	10.20	8.08	12.10	5.80	1.60	21.08	45.25	12.80	21.10
Amritsar . . . . .	1,000,786	796,779	52,626	41,709	10,766	...	0.80	0.20	0.40	1.90	0.80	13.20	20.00	10.60	25.30	11.30	1.90	37.20	69.10	38.30	21.80
Lahore . . . . .	1,334,652	1,164,921	76,939	68,036	7,291	...	1.20	1.10	0.20	0.95	0.60	0.00	17.20	12.20	8.60	10.00	...	...	...	...	...
<b>TOTAL E. D. CANAL</b>	<b>4,800,884</b>	<b>2,797,924</b>	<b>165,470</b>	<b>160,826</b>	<b>18,892</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	
Lahore . . . . .	Given above.		9,023	10,215	...	6,303	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(6)
Montgomery . . . . .	3,467,750	357,612	31,684	54,706	...	24,030	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13.00
Muzaffargarh . . . . .	3,763,200	798,360	307,490	106,773	7,707	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7.80
Dera Ghazi Khan . . . . .	3,067,819	307,530	125,140	134,300	798	...	0.95	0.20	...	...	...	...	...	...	...	...	...	...	...	...	(5)
Shahpur . . . . .	2,901,360	1,008,000	141,841	136,763	12,061	...	0.70	0.50	...	0.80	0.90	...	9.40	21.15	0.10	3.10	0.60	1.10	11.10	6.45	11.10
<b>TOTAL INFILTRATION CANALS</b>	<b>10,142,461</b>	<b>3,087,498</b>	<b>639,056</b>	<b>651,964</b>	<b>22,064</b>	<b>30,322</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	
<b>GRAND TOTAL</b>	<b>(1)</b>	<b>(2)</b>	<b>862,009</b>	<b>836,554</b>	<b>62,130</b>	<b>56,779</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	

Area irrigated in kharif, 1882-83 . . . . .  
Ditto ditto 1881-82 . . . . .  
Not declared . . . . . 16,381

(1) and (2) These figures differ from those shown in the return for kharif, 1881-82, in consequence of the exclusion from the present statement of the trunks granted before the preparation of Demand Statement.

(3) The difference between the area shown in the present return and that given in the statement for kharif, 1881-82, is due to the deduction of the land submerged by flood or waste water.

(4) and (5) These figures represent the correct rainfall during kharif, 1882-83, and differ from those in the return for that crop submitted last year.

(6) These figures differ from those shown in the returns for kharif, 1881-82, in consequence of the omission of Gurgau from this return, in which District no irrigation is shown.

STATEMENT No. II.  
Statement in Acres of Crops irrigated in Canal Districts.

Description of Crops.	Ummala.	Karnal.	Bhatinda.	Delhi.	Guru Gran.	Hissar.	Jullund.	Bilaspur.	Amritsar.	Lahore.	Muzaff.	Dera Ghazi Khan.	Shahpur.	Muzaff.	Dera Ghazi Khan.	Shahpur.	Muzaff.	Total.		
Sugar cane . . . . .	400	8,058	18,028	18,000	...	428	2,773	...	4,612	4,700	2,840	78	3,318	96	86	6,411	68,580	145,167	145,748	
Rice . . . . .	2,150	14,091	3,446	2,830	...	6,183	2,680	...	10,344	20,320	10,887	5,042	14,535	15,724	12,720	17,758	17,707	17,707	17,707	
Cotton . . . . .	8	9,331	11,106	9,046	...	20,420	6,800	...	42	584	9,330	24,107	5,138	31,061	20,288	4,741	42,730	155,246	305,988	305,988
Indigo . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...
Others . . . . .	335	5,735	6,446	9,024	...	6,880	6,950	163	2,918	17,750	47,914	31,989	77,381	7,476	8,970	...	...	...	...	...
<b>TOTAL KHARIF, 1882-83</b>	<b>4,706</b>	<b>26,705</b>	<b>35,530</b>	<b>34,800</b>	<b>...</b>	<b>53,919</b>	<b>26,827</b>	<b>234</b>	<b>18,819</b>	<b>63,525</b>	<b>65,240</b>	<b>21,558</b>	<b>207,480</b>	<b>141,644</b>	<b>7,086</b>	<b>136,148</b>	<b>623,906</b>	<b>136,148</b>	<b>623,906</b>	
<b>TOTAL KHARIF, 1881-82</b>	<b>3,887</b>	<b>30,347</b>	<b>32,916</b>	<b>32,984</b>	<b>...</b>	<b>38,963</b>	<b>26,272</b>	<b>241</b>	<b>17,000</b>	<b>41,780</b>	<b>64,260</b>	<b>68,705</b>	<b>190,773</b>	<b>126,783</b>	<b>7,132</b>	<b>134,350</b>	<b>876,466</b>	<b>134,350</b>	<b>876,466</b>	

\* These figures differ from those shown in the return for kharif of 1881-82, the cause of which is explained in note appended to Statement No. I.

STATEMENT No. III.  
Statement in Acres of Crops irrigated in Canal Divisions.

Description of Crops.	Wazirabad Jumna Canal.				Ravi Doab Canal.			Upper Sutlej Irrigation Canal.			Lower Sutlej Irrigation Canal.			Dera Ghazi Khan Division Canal.			Shahpur Canal.				
	1st Division	2nd Division	Total</																		

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. XXXIV of 1883.

**APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.**

Latest return received	Railways.	Total length open	Receipts for week ending 2nd September 1883		Receipts for week ending 1st September 1883		Total Receipts from 1st April to 2nd September 1883		Total Receipts from 1st April to 1st September 1883		Total Increase in 1883-84	Total Decrease in 1882-83
			Total.	Per mile open	Total.	Per mile open	Total.	Per mile open per week.	Total.	Per mile open per week.		
8th Sept. 1883	Guaranteed.											
8th Sept. 1883	Eastern Bengal <sup>a</sup> .	172	R 1,71,270	M 996	172	(e) 81,028	172	R 19,48,185	M 612	(e) 18,29,826	484	...
1st ditto	Oudh and Rohilkhand	547	72,936	135	547	96,843	177	21,54,845	178	24,99,420	208	3,44,784
8th ditto	Sind, Punjab & Delhi	676	1,61,642	231	749	1,79,670	240	29,77,100	266	61,12,493	312	11,33,393
1st ditto	Madras	861	1,38,878	151	861	1,06,738	124	30,53,119	160	28,36,080	150	...
1st ditto	South Indian	635	76,034	116	655	72,980	111	16,65,230	115	17,05,705	118	40,475
25th Aug. 1883	Great Indian Peninsula	1,450	3,51,832	243	..	(f)	...	1,38,90,042	453	11,47,61,601	484	8,62,569
1st Sept. 1883	Bombay, Baroda and Central India	461	1,19,216	259	461	1,31,115	284	44,30,337	484	49,90,205	493	5,59,988
	<b>TOTAL</b>	<b>4,822</b>	<b>10,76,697</b>	<b>223</b>	<b>53,445</b>	<b>6,08,194</b>	<b>194</b>	<b>3,11,28,638</b>	<b>291</b>	<b>3,87,36,318</b>	<b>814</b>	<b>26,07,680</b>
	<b>State.</b>											
8th Sept. 1883	East India	1,507	R 6,76,990	M 449	1,509	7,02,224	625	1,86,28,154	568	2,18,97,308	660	22,69,154
1st ditto	Calcutta and South-Eastern	33	2,639	80	66	4,430	79	82,192	120	1,26,843	108	44,151
8th ditto	Nalhati	27	1,352	50	27	1,674	61	28,938	48	35,118	50	6,180
1st ditto	Northern Bengal	230	37,289	163	239	30,750	129	7,89,327	153	8,63,386	166	71,058
1st ditto	Turboot	75	11,896	159	106	14,616	87	2,76,216	152	3,55,417	98	79,231
4th Aug. 1883	Patna-Gya	67	6,726	118	..	(g)	..	(e) 1,62,612	157	(f) 1,47,281	143	...
8th Sept. 1883	Mottra-Hathras	29	2,055	92	29	3,440	119	48,580	78	64,678	86	6,098
8th ditto	Cawnpore-Furzahabad	87	6,813	73	87	6,658	77	1,41,487	78	1,40,598	78	...
8th ditto	Daharnagar-Ghazipur	12	662	55	12	687	67	18,937	75	21,194	80	1,357
8th ditto	Rajputana-Malwa	1,117	1,16,157	104	1,117	1,64,240	147	43,75,468	177	51,61,103	210	7,85,725
8th ditto	Wardha Coal	46	6,692	140	45	5,592	124	2,24,603	225	8,00,640	310	82,046
8th ditto	Nagpur & Chhattisgarh	96	8,892	40	149	5,494	37	9,49,741	115	6,07,648	185	3,57,907
8th ditto	Rangoon and Irrawaddy Valley	161	17,325	108	181	18,716	116	5,84,174	167	5,90,356	167	...
8th ditto	Sindu	75	4,504	60	76	5,045	67	1,38,190	80	1,31,965	80	...
1st ditto	Punjab Northern	408	44,809	109	421	55,676	132	12,48,407	140	18,62,422	144	84,015
1st ditto	Indus Valley and Kan-dahar	660	80,051	121	680	97,710	148	17,53,747	120	22,81,638	226	15,27,796
8th ditto	Muttra-Achhnera	28	1,767	76	23	1,380	60	27,217	58	31,733	63	4,516
1st ditto	Kaunia-Dhuria	33	1,382	43	32	1,770	55	31,823	45	40,698	66	9,875
8th ditto	Rewari-Panipat	...	...	..	89	8,590	97	..	1,44,769	74	1,44,769	...
	<b>TOTAL</b>	<b>8,170</b>	<b>3,45,911</b>	<b>109</b>	<b>53,888</b>	<b>4,26,368</b>	<b>126</b>	<b>1,01,80,559</b>	<b>145</b>	<b>1,33,82,834</b>	<b>177</b>	<b>21,82,275</b>
	<b>Assisted Company.</b>											
8th Sept. 1883	Bengal Central	...	...	..	36	1,918	55	...	...	46,712	61	46,712
	<b>Native States.</b>											
1st ditto	Bhavnagar-Goudal	194	9,330	51	193	11,476	59	4,08,915	95	4,59,531	107	44,616
1st ditto	Nizam's	181	17,626	146	121	11,934	99	3,67,475	187	3,31,464	126	...
1st ditto	Mysore	...	4,307	50	86	4,840	56	1,19,471	68	1,11,636	59	...
8th ditto	Jodhpore	18	449	24	19	1,010	53	(g) 2,000	10	15,768	37	12,768
	<b>TOTAL</b>	<b>420</b>	<b>32,212</b>	<b>77</b>	<b>419</b>	<b>29,260</b>	<b>70</b>	<b>8,27,801</b>	<b>98</b>	<b>9,14,394</b>	<b>90</b>	<b>14,588</b>
	<b>GRAND TOTAL</b>	<b>9,918</b>	<b>31,58,810</b>	<b>215</b>	<b>48,706</b>	<b>19,17,964</b>	<b>218</b>	<b>6,06,35,212</b>	<b>277</b>	<b>6,99,55,666</b>	<b>809</b>	<b>91,80,854</b>
	<b>GROSS ESTIMATED EXPENSES</b>	...	...	...	...	...	...	3,06,12,755	161	8,49,35,193	164	...
	<b>NET RECEIPTS</b>	...	...	...	...	...	...	2,99,23,457	165	8,50,30,873	165	56,97,916

(a) Exclusive of the Company's share of the earnings of the Bengal Central Railway.  
(b) Return not received.  
(c) Total receipts from 1st April to 26th August 1883.  
(d) Total receipts from 1st April to 26th August 1882.  
(e) Total receipts from 1st April to 8th August 1883.

(f) Total receipts from 1st April to 8th August 1883.  
(g) Total receipts from 24th June to 1st September 1883.  
(h) Excludes mileage of G. I. P. Railway (1,451).  
(i) Excludes mileage of Patna-Gya Railway (377).  
(j) Excludes mileage of G. I. P. and Patna-Gya Railways (1,451+377).

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.

IRRIGATION OPERATIONS, 1882-83.

*Comparative Statement of Irrigation and Rain-fall for the years 1881-82 and 1882-83 in the Canal Districts of the Punjab.*

Districts.	Population	Area in acres.	Cultivated area in acres.	AREA IRRIGATED				RAIN FALL			
				Kharif 1882-83		Rabi 1882-83		Wheat 1882-83.		1881-82	
				Total acres	In comparison with 1881-82	Total acres	In comparison with 1881-82	Total acres	In comparison with 1881-82	Increases.	Decreases.
<b>Western Jumna Canals.</b>											
Gurdaspur	1,067,285	1,644,539	651,860	2,705	511	793	1,634	3,353	17,553	+17.54	+32.9
Mohali	629,521	1,382,940	640,119	2,235	47,946	47,946	6,014	61,073	14,171	+16.26	-1.0
Amritsar	648,515	884,933	620,976	1,300	4,530	80,773	13,986	73,739	16,570	+27.64	+9.3
Delhi	665,019	1,159,380	906,022	2,005	1,161,761	13,919	19,389	79,973	14,355	+21.52	-35.6
Rohtak	594,158	2,266,428	2,087	1,303	6,054	46,164	35,473	62,390	10,639	+20.67	+9.6
Jind	251,451	..	..	17	224	227	..	..	..	..	-1.5
Hissar	..	..	..	..	..	..	..	..	..	..	..
<b>Total Western Jumna Canals.</b>	<b>4,842,487</b>	<b>7,693,460</b>	<b>4,925,466</b>	<b>17,753</b>	<b>11,579</b>	<b>6,447</b>	<b>20,490</b>	<b>60,044</b>	<b>879</b>	<b>574,434</b>	<b>74,093</b>
<b>Ram Doab Canal.</b>											
Gurdaspur	883,406	1,168,314	646,930	10,619	1,550	31,213	674	259,523	878	+3.32	+6.36
Mohali	860,386	1,006,769	700,773	482,527	10,745	52,320	13,677	151,545	..	-1.37	-14.50
Amritsar	884,106	2,394,552	1,104,521	76,325	7,991	113,652	10,504	189,929	12,213	-6.07	+71.92
Ludhiana	..	..	..	..	..	..	..	..	..	..	..
<b>Total Ram Doab Canal.</b>	<b>2,641,087</b>	<b>4,608,564</b>	<b>2,707,524</b>	<b>146,470</b>	<b>18,587</b>	<b>207,146</b>	<b>..</b>	<b>33,940</b>	<b>353,615</b>	<b>976</b>	<b>14,064</b>
<b>Total Panchayat Canals.</b>											
<b>Irrigation Canals.</b>											
Lahore	..	..	..	..	..	..	..	..	..	..	..
Montgomery	486,529	5,067,530	3,67,529	9,924	24,298	24,298	9,052	84,1307	16,70	-17.47	-187.32
Muzaffargarh	101,984	3,783,200	967,430	7,279	1,006	1,006	1,041	363,672	..	+ 4.84	9.10
Dera Ghazi Khan	386,340	2,561,260	1,006,000	1,41,944	12,361	12,361	13,014	363,046	183	-0.09	13.25
Shakargarh	431,548	5,062,459	624,988	7,829	4,375	4,375	12,631	12,631	..	+ 7.72	25.20
Mianwali	329,406	2,167,819	327,629	1,53,148	799	124,237	9,384	259,345	10,737	+ 4.93	+ 23.19
<b>Total Irrigation Canals.</b>	<b>2,101,982</b>	<b>14,159,491</b>	<b>3,097,469</b>	<b>633,646</b>	<b>22,678</b>	<b>30,322</b>	<b>19,450</b>	<b>32,438</b>	<b>16,643</b>	<b>-2.18</b>	<b>..</b>
<b>Grand Total</b>	<b>27,980,025</b>	<b>10,101,091</b>	<b>842,909</b>	<b>53,130</b>	<b>36,779</b>	<b>630,413</b>	<b>68,491</b>	<b>60,501</b>	<b>1,653,372</b>	<b>103,412</b>	<b>+ 2.31</b>
<b>New Irrigation</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>37,394</b>	<b>..</b>	<b>..</b>

\* These figures differ from those given in the statement of Irrigation and Rain-fall for 1881-82, in consequence of the omission of Gurgan on from the "40" return.

† In these cases the comparison has been made with the figures shown in half yearly statements of irrigation operations for kharif and rain 1881-82, and not with those entered in the Annual Statement of Irrigation and Rain-fall for 1881-82.

‡ Give the correct acreage for 1881-82, and not with those attached hereto.

§ In this case also the comparison has been made with the figures given in the Revised Statements of Irrigation operations for kharif 1882-83, and not with those given in Annual Statement of Irrigation and Rain-fall for 1881-82.

¶ This is the correct rain-fall and differs from that shown in the comparative statement of Irrigation and Rain-fall for the year 1881-82 and 1882-83.

R. HOME, Colonee, R.E.,  
Fiscal Secy. to Govt., Punjab, F. W. D., Lahore, Branch.

**GOVERNMENT OF INDIA.**  
**DEPARTMENT OF FINANCE AND COMMERCE.**

THE STATEMENT OF PRICES CURRENT OF FOOD GRAINS FOR THE 1ST HALF — JUNE 1983 PUBLISHED ■ PAGES 1310 AND 1311  
SUPPLEMENT TO "STATEMENT OF PRICES CURRENT OF INDIA" DATED 14TH JULY 1983.

SYNTHETIC POLY(URIDYLIC ACID) ANALOGUE IN SEARCH OF NO TOLAHIS

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SUPPLEMENT TO THE GAZETTE OF INDIA, SEPTEMBER 29, 1883. 1623

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.

No. 862R.C., dated 21st September 1883.

ORDER—By the Government of India, Public Works Department.

Preliminary Report on the reconnaissance survey of the country between Moghal Sarai and Daltonganj, in connection with the projected Benares-Cuttack-Pooree Railway.

Read the following papers :—

- (1) Letter from the Government of India, Public Works Department, to the Government of the North-Western Provinces and Oudh, Public Works Department, No. 1044R.C., dated 9th December 1882.
- (2) Letter from the Government of India, Public Works Department, to the Government of the North-Western Provinces and Oudh, Public Works Department, No. 521R.C., dated 13th June 1883.
- (3) Letter from the Government of the North-Western Provinces and Oudh, Public Works Department, to the Government of India, Public Works Department, No. 1275W.R., dated 11th July 1883, and two enclosures (*a* and *b*).
  - (*a*) Letter from Engineer-in-Chief, Provincial Railways, North-Western Provinces and Oudh, to Chief Engineer, North-Western Provinces and Oudh, No. 1161W.R., dated 29th June 1883.
  - (*b*) Report on reconnaissance survey from Moghal Sarai to Daltonganj.
- (4) Letter from the Government of India, Public Works Department, to the Government of the North-Western Provinces and Oudh, Public Works Department, No. 733R.C., dated 18th August 1883; and note by Consulting Engineer to the Government of India for State Railways, dated 4th August 1883.

ORDER.—Ordered, that the papers quoted be published in the Supplement to the *Gazette of India* for general information.

No. 1044R.C., dated 9th December 1882.

From—The Secretary to the Government of India, Public Works Department;  
To—The Secretary to the Government of the North-Western Provinces and Oudh, Public Works Department.

I am directed to inform you that the Government of India is anxious to have a reconnaissance of the country between Benares and Cuttack made with a view to determining whether a fairly direct railway communication between the two places is practicable at a reasonable cost, and to request that His Honor the Lieutenant-Governor will afford such assistance towards the exploration of the country during the present cold season as he may be able.

2. The route via the Grand Trunk R. of into Chota Nagpur is fairly well known, but the adoption of this line involves the serious undertaking of bridging the Sone river at or near Baroon, the cost of which is virtually prohibitory. It is, however, believed that the passage of this river will be found less formidable if attacked at some point higher up in its course; and it is in the investigation of a route which seems to promise well in respect to an easy crossing, and some 70 miles of which will probably lie within the North-Western Provinces, that His Excellency the Governor General in Council will be glad of His Honor the Lieutenant-Governor's co-operation.

3. The route which has been suggested for examination starts from Mogulsingh, East Indian Railway, and runs in a nearly southerly direction towards Nowgarh on the upper reaches of the Karamnasa river. From there the line runs to the east of the fort of Nowgarh through the range of hills by the Omiah or other convenient ghat to a probable crossing of the Sone river at Chukureea. After that the direction will be more easterly, passing near Kon Khas, will follow the general direction of the road through Untari, Garhwa to the left bank of the Koel river opposite Daltonganj.

4. So little, however, is known of the country which will be traversed by the proposed route that the Government of India does not wish the examination to be restricted to it exclusively. The object is to ascertain if a line of railway with reasonable gradients and following generally the line indicated above, but not necessarily confined to it, and leading up to

a good crossing of the Sone, is economically practicable. I am to request therefore that the officers whom His Honor the Lieutenant-Governor may be able to depute for this reconnaissance may be instructed to exercise their discretion freely in the choice of routes, selecting those for more detailed investigation which may promise best to serve the end in view.

5. The junction of the survey with those now being undertaken by the Government of Bengal will probably be somewhere in the neighbourhood of Daltonganj, but the officer in charge of the reconnaissance should place himself in communication with Mr. Parker, Engineer-in-Chief, Chota Nagpur Railway Survey, Hazaribagh, as to the route to be followed eastward of Garhwa.

6. I am also to add that a small grant to meet the expenses of the party will be made if desired.

7. As a part of the route lies through country under the Government of Bengal, His Honor the Lieutenant-Governor of Bengal has been consulted in the matter. Mr. Rivers Thompson has no objection whatever to an officer of your Government making the survey of that part of the line in Bengal, and in order that that Government may be fully aware of the facts of the case, a copy of this letter will be forwarded to them for information and for further action.

No. 1015R.C.

Copy to Secretary to Government of Bengal, Public Works Department, for information and for such further action as may be necessary.

No. 521R.C., dated 13th June 1883.

From—The Secretary to the Government of India, Public Works Department,  
To—The Secretary to the Government of the North-Western Provinces and Oudh,  
Public Works Department.

I am directed to acknowledge the receipt of your letter No. 745W.R. of the 21st May 1883 forwarding progress reports of the Benares and Palamow Railway Survey for the months of April and May 1883.

2. These reports, and those for February and March 1883, received with your letter No. C 65R. of the 5th May 1883, establish that the Sone river is easily approachable from the north with moderate grades; that a good crossing of the Sone is practicable only 3,100 feet wide with rock foundations; and that the country from the Sone to Daltonganj presents no serious difficulties to railway construction. I am to express the satisfaction of the Government of India at the receipt of this information, and to say that the final reports of the reconnaissance are awaited with interest.

• • 3. I am also to request that, with the permission of His Honor the Lieutenant-Governor, the Government of India may be furnished with a full account of the character, productiveness, &c., of the country between Mogulserai and the Sone, accompanied by an expression of His Honor's opinion as to the advantages generally to the North-Western Provinces of a line from Mogulserai to Daltonganj and the Amunga and Kurumpura coal fields, and thence through Chota Nagpur and Chyebassa to Cuttack and Pooree.

Copy, with copy of the progress reports of the Benares and Palamow Railway Survey for the months of February, March, April, and May 1883, forwarded to the Government of Bengal, in continuation of previous correspondence ending with Public Works Department letter No. 1094R.C. of the 26th December 1882, for information and communication to Messrs. Burn and Company.

No. 1275W.R., dated 14th July 1883.

From—The Secretary to the Government of the North-Western Provinces and Oudh, Public Works Department, Railway Branch,  
To—The Secretary to the Government of India, Public Works Department.

Letter No. 1161W.R., dated 20th June 1883, from the Engineer-in-Chief, Provincial Railways, North-Western Provinces and Oudh, to the Chief Engineer, North-Western Provinces and Oudh.

Report, together with index plan, by the Executive Engineer, Benares, to Palamow Survey.

I am directed to forward copies of the correspondence marginally noted in reference to your No. 521R.C., dated 12th June, and in continuance of this office No. 715W.R., dated 21st May.

2. I am to remark that, although the route suggested by the Government of India was not found practicable, it is satisfactory to find that the construction of a line of railway between Benares and Chota Nagpur is feasible, and His Honor the Lieutenant-Governor, North-Western Province, considers that application is due to Mr. G. A. Campbell, Executive Engineer, for the

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manner in which he has in four or five months explored the difficult country between Mogulserai and Daltonganj.

3. I am also to enquire whether any more information is required beyond the section of such portion of the line as was taken and that called for in your No. 5211 R.C., dated 12th June.

No. 1161 W.R., dated 29th June 1883.

From—The Engineer-in-Chief, Provincial Railways, North-Western Provinces and Oudh,

To—The Chief Engineer, North-Western Provinces and Oudh, Public Works Dept.

Mr. Campbell, the Executive Engineer, engaged on the Benares and Palamow Survey, has lately returned to Allahabad, and I have had an opportunity of talking to him on the subject of the railway reconnaissance, and I find that the monthly reports he sent in were more favorable than the circumstances of the case justified.

2. I therefore asked him to prepare and send in at once a preliminary plan and report, which are forwarded herewith.

3. In the tracing 1" — 1 mile, the line which Mr. Campbell recommends is shown in full red; the other lines shown are those which were examined and found not possible.

4. The principal points established were—

- (a) That it is not possible to take the line, as shown dotted, along the banks of the Chandar Parbh river, and so ascend gradually to the plateau which occupies the whole country north of the Sone river. The Chandar Parbh issues out of the hills through a narrow gorge, with almost perpendicular banks, which are intersected with huge ravines.
- (b) That once the top of the plateau is reached, there is no difficulty in taking a railway across it in any direction.
- (c) That the only possible way of descent from the plateau to the Sone river is by the gorge of the Ghaggur river.
- (d) That after crossing the Sone river, it is not possible to reach Daltonganj *viz.* Untari, as suggested by the Government of India, owing to a continuous range of hills, about 400 feet high and two or three miles wide, which stops the way. By making a detour of about three miles, and leaving Untari on the south of the line, a perfectly feasible line can, however, be obtained.

5. The full red line shown in the tracing 1" — 1 mile is that recommended for adoption, and from the foregoing it will be, I trust, plain that the principal points of difficulty are—

- (1) The ascent from the Ganges valley up to the plateau about 20 miles south of Benares.
- (2) The descent from the plateau *viz.* the gorge of the Ghaggur river into the Sone valley.
- (3) The crossing of the Sone river.

6. The ascent from the Ganges valley to the plateau is dealt with in paragraphs 99 to 101 of the Executive Engineer's report. The difference of level between the plain and the top of the plateau is here said to be about 300 feet, and the Executive Engineer proposes to make the ascent by winding along the slopes of the hills which are said to be very easy at the top, and more difficult towards the bottom. It is assumed that in this way it will be possible to obtain a gradient of 1 in 200, but I do not think, without the actual survey being made, it will be safe to assume that a better gradient than 1 in 100 can be obtained without going in for excessively heavy works. Even with a 1 in 100 grade there will be a continuous rise for nearly 6 miles, and it is very seldom that ground can be got that will fit into this.

7. The descent from the plateau to the Sone river through the gorge of the Ghaggur river is dealt with in paragraphs 84 to 93 of Executive Engineer's report. The general proposal is to cross the Ghaggur on a bridge from 90 to 100 feet high at the position shown by the full red line; to continue thence along the hills sloping into the river on continuous grades, varying from 1 in 150 to 1 in 200, till the level of the plain of the Sone is reached about 300 feet below. The hills over the Ghaggur river on the south side are described as of rock, with easy slopes, but it is plain that a railway made thus along the sides of hills must be a very expensive undertaking, and I fear that here again better gradients than 1 in 100 will not be found possible.

8. With respect to the Sone crossing, the river, 3,000 feet wide, is confined well within rocky banks, but without borings it is impossible to offer an opinion as to whether the foundations will be difficult or not. The crossing of the Sone is described in paragraphs 87 to 42 of Executive Engineer's report.

9. The conclusions I arrive at are—

- (1) From Mogulserai to the foot of the plateau the line will be very easy.
- (2) The ascent of the plateau will be with gradients probably not less than 1 in 100, and the works will be rather heavy for about 6 miles.

(3) Across the plateau the works will be ordinary and easy.  
 (4) The descent from the plateau to the Sone river through the gorge of the Ghuggur river will have grades of not less than 1 in 100 for 6 or 7 miles, and the works will be very heavy and costly.  
 (5) The crossing of the Sone river will entirely depend upon the depth of sand before rock is reached, and this cannot be told without borings.  
 (6) From the Sone river to Daltonganj the works will be moderate with moderate gradients, probably not exceeding 1 in 200.

10. The plotting of such sections as were taken is now in hand, and will be submitted, when ready, together with a report on the probable traffic.

#### NORTH-WESTERN PROVINCES AND OUDH.

##### PROVINCIAL RAILWAYS.

###### BENARES AND PALAMOW RAILWAY SURVEY.

*Preliminary report on reconnaissance survey from Mogulserai to Daltonganj.*

1. The Government of India being desirous of ascertaining whether or not fairly direct railway communication was possible between Benares and Cuttack at a reasonable cost, directed the Government of the North-Western Provinces and Oudh to have a reconnaissance survey made from the nearest convenient point to Benares, i.e., Mogulserai on the East Indian Railway to Daltonganj in the Palamow subdivision of the Lohardugga District.

2. The Benares and Palamow Railway Survey Division was accordingly formed with the object of carrying out the wishes of the Government of India as above quoted.

3. Lines were laid down on the 1 inch to the mile maps by the Engineer-in-Chief, Provincial Railways, North-Western Provinces and Oudh, as nearly as possible in the direction suggested by the Government of India in G. O. No. 1014 R. E., dated 9th December 1882, from Secretary to the Government of India, Public Works Department, to the Secretary to the Government of the North-Western Provinces and Oudh, Public Works Department, for general guidance, but which were not necessarily to be adhered to if easier country could be found on a different line.

4. The chief difficulties apprehended were the passage through the Kaimur range, miles 50 to 60; the crossing of the Sone river, mile 67; and the passage, miles 85 to 91, through the hills north of Untari (mile 93) on the borders of the Lohardugga District.

5. The above mileage is that of the line surveyed which is shown in the accompanying map in a red dotted line.

6. Survey work was commenced on the 2nd February 1883 from the Mogulserai station, and the line was carried in a southerly direction for 43 miles to the point whence two alternative lines diverged—one to the east, and the other to the west—of the more direct southerly route passing close to the fort of Bijegarh. This latter, shown in green on map, was examined and found, owing to the great height of the hills, the steepness of their approaches, and their great breadth on the top, to offer no likelihood of getting a line either over or through the range.

7. From enquiries made it was ascertained that the line shown in blue on map to the east of the direct southerly route was impracticable owing to the great and very abrupt fall on the south side of the Kaimur hills. It was therefore considered desirable to first examine the westerly route which appeared to afford a feasible passage through a natural gap in the hills. This was accordingly done with the result that a possible, though difficult and expensive, line has been found through the Kaimur range leading to a crossing over the Sone river near the Saanai Ghat almost due south of Bijegarh Fort.

8. After crossing the Sone, the line takes an easterly direction, and, passing Maidiha mile 72, Ramgarh mile 75, Kon Khas mile 79, Baghsooti mile 85, Untari mile 93, Miral mile 110, and Garhwa mile 116, runs to Shahpur, mile 125, on the left bank of the Koel river opposite Daltonganj.

9. A more detailed description of the country passed over will now be given.

10. On leaving Mogulserai, the country was found to be very flat for 15 miles, the difference of level being only 2 feet per mile. Over this portion the gradients would of course be very easy, and with the exception of the Garaiya, mile 9, which would require a 20' feet bridge, 10 feet to springing, 130 feet of waterway per mile would be sufficient to pass the drainage. Abundance of kunkur for lime and ballast is obtainable, as also is brick clay. The foundation of the culverts would be in clay.

11. The foot of the plateau which crosses the Mirzapur District from east to west is now reached, and the features of the country are entirely changed.

12. The ground is undulating, very rocky and barren, and with a steady rise southwards amounting to 40 feet in 4 miles. Owing to the undulating nature of the country few culverts are required, and the banks and cuttings would be comparatively light. The cuttings would, however, be mostly all rock, which is chiefly sandstone. One bridge of 30 feet span with clay

foundation over a deep artificial stream, and one of 3-20 feet spans with rock foundations in the 17th mile, would be required; the remainder of the drainage could be passed by 2-10 feet culverts per mile. Brick clay and stone for building purposes and ballast are available.

13. The line now crosses some cultivated land of the villages of Hetampur and Niwazganj, mile 20, and enters the jungle at the foot of the hill at 20 $\frac{1}{4}$  miles. The ground is steadily rising with intervening undulations. One stream requiring a 15 feet, or at the most a 20 feet, culvert, is crossed.

14. The line now winds along, and up the hill some very rough broken ground is passed over. The soil is an admixture of coarse gravel and loam. Some streams are crossed, but they are not of importance, and might be avoided altogether by taking the line a little higher up the hill. At mile 19 the reduced level is 272-00, at 20 it is 291-00, at 21 it is 271-00. Between miles 20 and 21 there is a small spur which could be skirted.

15. Immediately to the right (or west) of mile 21 there is a large and deep ravine, along which the line could wind, with a rising gradient of 1 in 125 or 1 in 150.

16. In mile 22 some large ravines are crossed — 2 of 60 feet span, 2 of 50 feet, and 1 of 80 feet; the reduced level of 22nd mile is 414-00, or 143 feet above mile 21. The ascent is very rapid, and the hill sides are precipitous.

17. In the next mile (23) there are one ravine of 30 feet, one of 50 feet span, 3 of 60 feet, and 2 of 80 feet. They are all very deep, varying from 40 feet to 80 feet. The reduced level at mile 23 is 603, or 189 feet above mile 22, and 332 feet above mile 21.

18. In mile 24 there is one very large ravine, 50 feet wide at bottom, about 400 feet wide at top, and 135 feet deep, running into the Chandar Parbah river, which is about 15 chains to east of the line. About  $\frac{1}{4}$  mile beyond this ravine the summit of the high land at reduced level (691) is reached at mile 23 $\frac{1}{4}$ , or 120 feet above mile 21, or 188 feet per mile. From this it is clear that, as there is not sufficient space in which to curve about in order to get practicable gradients, this route is not feasible.

19. The banks of the Chandar Parbah all along opposite mile 23 and part of mile 24, are almost perpendicular for over 200 feet in depth. In fact they overhang in places; they are all solid rock, and it would therefore be quite impossible to cut a line along the face of this rock.

20. From the top of the high land, which is a plateau extending westwards beyond Mitzapuri and Allahabad, the line passes over easy undulating ground for 26 miles *via* Dhusuria mile 25, Narkati mile 30, Majhaon mile 35, Pachpudia mile 41, Poornan mile 44, and Sidhi mile 47, to the vicinity of the Ghaggar river. The Chambal Parbah is crossed at mile 28 $\frac{1}{2}$ ; at this point it is 100 feet wide with a rock bed, well defined banks 15 feet deep. The reduced level of the bed of the river, which is here 500 feet above the bed opposite the 19th mile of this line, is 711-00, and the flood level is said to be 20 feet high. A bridge of 3 spans of 50 feet each would be sufficient.

21. The only other stream of importance is the Belan ("Balun" and "Biland" in the maps), mile 42. In itself it is a small stream, but it would require a bridge of 3-30 feet spans, as it has a wide shallow valley. About 8 miles to the west (down stream), where this stream is crossed by the Ahraora and Robertsganj road opposite mile 13, the bridge over it is 1 span of 37 feet, 2 of 27 feet, and 2 of 15 feet.

22. Besides the above two rivers, three culverts per mile of 10 feet span, 5 feet of springing, should pass all the drainage.

23. The gradients over this portion will be fairly easy, 1 on 200 being the steepest that is likely to be required. The banks and cuttings will be on the average 6 feet, with the exception of a few places, where, in the long undulations which are a characteristic feature of this part of the country, ridges between the depressions will have to be cut through. The cutting in these places will probably be from 20 to 30 feet deep.

24. The land along the most part of the line will not be expensive, as it is chiefly jungle. In fact from mile 21 to mile 41 it is, with few exceptions, nothing but dense jungle the whole way. From mile 41 the line emerges into cultivation, which extends up to mile 47 $\frac{1}{2}$ .

25. The most difficult part of the line is now reached, i.e., the approaches to and crossing of the Ghaggar river, mile 51.

26. This river flows from east to west in a very deep channel 275 feet below the summit of the high land on the north side, and 250 feet below the top of the hills on the south.

27. The banks of the river are steep and rocky for heights varying from 50 to 300 feet, the latter height being reached some distance below the crossing, where the river has cut up to the hills. The north or right bank is much steeper than the left one, which is more or less shelving all the way from Bijegarh to where the river turns to the south towards the Sone.

28. The course of the river is fairly straight for  $\frac{1}{4}$  miles down stream from Bijegarh. Thence it becomes very tortuous, the fall of the bed increases, and, after another two miles, it is merely a gorge between precipitous and rocky banks. There is a tributary stream on the right bank which might afford a means of getting down to a favorable crossing of the river. Another stream which lies to the west of Sidhi, mile 47, and south of Urauli opposite mile 47, and which is the only other one that might have been of service in enabling an easy crossing of the river to ~~the~~ <sup>the</sup> ~~middle~~ <sup>middle</sup> state at the high bank on the right, and discharge

its waters down a fall of about 200 feet. The selection of a good site for a bridge over this river is a matter of great difficulty, owing mainly to the very close proximity of the hills on each side and their great height above the river bed.

29. A crossing can be got by approaching the stream immediately south of the village of Sidhi with a heavy cutting, say 60 feet deep, at the edge of the high ground on the north bank of the river.

30. From this point the line would be carried westward along the face of the slope which is at an angle of about  $45^{\circ}$  for about a mile, when a semi-detached hill is met, round which the line could be carried. It would then cross a small ravine and continue its westerly course for  $\frac{1}{2}$  of a mile to a point, one mile to the west of the point, where the river is crossed by survey line, and where there is a fairly good site for a bridge.

31. The best form of bridge for spanning this stream would be a single girder of about 150 feet span. The height of the bridge would be from 100 to 120 feet. The abutments would have very good foundations on the rocky banks of the river, and the wing walls could be stepped back into the hill sides. The embankment would require a revetment wall for about 500 feet, and would be composed of rough stone blocks with interstices filled in with earth.

32. The gradient would be very heavy, 1 in 125 being required to get down from the high land on the north to the bridge. The work would chiefly be rock cutting, but there would be some embankments where ravines were crossed. Four bridges would be required — one of 30 feet, two of 50 feet, and one of 60 feet span.

33. The line would then curve away to the west and wind along the north face of the hill, on the left bank of the river, till its western extremity was reached at mile 57 $\frac{1}{2}$  on proposed line (not dotted or survey line). Then turning round the spur, it would take a south-easterly direction up to mile 60 on proposed line along the southern face of the hill, which is much steeper on this side than it is on the north face. The slope is from  $15^{\circ}$  to  $60^{\circ}$ . The work would consist almost exclusively of rock cutting, and the gradient would be 1 in 125 and 1 in 150. Some four or five small ravines would be crossed requiring culverts of 10 feet span.

34. The line actually run has a westerly course from Sidhi, mile 17 ( $70^{\circ}$  west of south), for  $2\frac{1}{4}$  miles. Thence it turns southwards and crosses a bridge the summit of which is at reduced level 902, mile 30. It thence passes down a deep ravine, crosses the river bed of which is at reduced level 715. Thence it passes up a rocky ravine and over the summit of the hills on the left bank of the river at their lowest point, i.e., reduced level 879, mile 51. The line then winds along the south-east face of the hill, and reaches comparatively level ground at reduced level 600 in a little over two miles at 52nd mile on survey line and mile 60 on proposed line.

35. The ground now reached, though fairly level, is very much broken up by ravines and streams which come down from Kamur hills on the left and fall into the Ghaggur on the right.

36. Some of these streams are very wide and deep, varying 20'  $\times$  10' to 200'  $\times$  60'. They are also very tortuous, and have very swift currents. They will, however, not be found so difficult to deal with at first sight as they appear.

37. The line passes under Mangesur peak and Kunda Pahar, and reaches the bank of the Sone at mile 62 $\frac{1}{2}$  opposite the village of Kandhaora. It then turns eastward, and, running roughly parallel with the Sone for 4 miles, crosses the river a little above Sasnai Ghât at mile 67, where there is room between the river banks and the hills to get a curve of at least 1,000 feet radius.

38. There is a point higher up the river at which a more advantageous crossing could be made as regards the room for curved approaches up to the bridge, but this would necessitate bridging the Kanhar river, a large stream about 2,000 feet wide.

39. The Sone river is 3,000 feet wide at the point where it is crossed, and it is the same width for four or five miles up and down stream from that point. The banks are 28 feet high above low water and 33 feet above bed. Highest known flood level is 10 feet above river bed. The banks are rocky all along from the junction of the Ghaggur opposite Chopan to Chakari Ghât, which is the extent of the river examined.

40. The cleavage of the strata on the north side of the river is nearly horizontal, while that on the south side is nearly vertical, i.e., it forms an angle of  $75^{\circ}$  to  $80^{\circ}$  with the horizon. The bed of the river between these rocks is all sand mixed with large pebbles up to 3" and 1" diameter.

41. It is roughly estimated that the bridge over the Sone should be at least 15 spans of 200 feet each. This would give 3,000 feet clear water-way, which is the present unobstructed width of the river. Two land arches of 50 span might with advantage be given on each side. The height from river bed to flood is 10 feet; there should be about 15 feet between high flood level and bottom of girder to allow of brushwood and trees passing freely underneath without the risk of their being caught in the girders and causing an accumulation of debris, which might have disastrous results—10 + 15 = 55, and assuming 17 feet from bottom of girder to rail level = 72 feet, above bed of river, reduced level of bed of river is 456, which + 72 = 528.00, or reduced level of rails over bridge.

42. From the rocky nature of the banks and the close proximity of the hills on each side it is presumed that rock suitable for foundations will be found at no very great depth.

below river bed. The bridge would of course be all stone, except the girders, and good building stone can be had in the hills on either side.

43. After crossing the Sone the line passes through a gap in the hills, and takes a more or less easterly course along the foot of the small hills which run nearly parallel to the Sone.

44. Raingarhi, mile 76, is passed at mile 75, and Kon Khas at mile 79. Between the Sone and Maidiha, mile 72, some very bad ground is passed over, numerous small streams come down from the hills on the left, cutting up the ground in all directions, but the streams and ravines are not very deep or wide like those north of the Sone, and generally the surface is fairly level. In miles 72 and 73 the line is well up the slope of the hill, which is chiefly composed of flint rocks. Two large streams are crossed in mile 70, and two in mile 71, each requiring bridges of 100 x 30 feet of water-way.

45. From Maidiha, mile 72, onward to Kon, mile 79, the country is chiefly cultivation until the immediate vicinity of Kon is reached, where the ground is again broken up into ravines by the streams coming down from the hills to the south of the line. The soil is loose red saram and cuts up readily. A short distance from this broken ground the Panda river, mile 79, is met. This is a large stream, which will require a bridge of about 3-50 feet spans. About a mile and half beyond the Panda, along which portion the line skirts the low hills south of Kon, the line takes a more southerly direction, and, passing over fairly easy ground, reaches Baghusuti in the 83rd mile, 6 miles from Kon.

46. At this point another serious difficulty is encountered in following the route sketched out by the Government of India letter No. 1044 R.C. of 9th December 1882. A range of hills runs across the line bounded on the west by the Kanhar river and running eastward until the neighbourhood of Koel river is reached. At the point where the line crosses this range, the hills rise in less than a mile to 400 feet high on the north side. The breadth of the range is 2 to 2½ miles, and on the south side the plains about Untari, mile 93, are 600 feet below the top of the hills; this fall occupying a distance of less than 2 miles.

47. The ascent and descent are so abrupt that it would be only at great difficulty and expense that a line could be got through or across the range. In fact, the only feasible project is a tunnel of about 3 miles in length.

48. This route being for the above reasons considered quite out of the question, the towns of Untari and Miral, mile 110, must be left out in choosing another route, and for the same reasons it is considered unnecessary to give a detailed account of the route followed from the hills to Garhwa, mile 116. It will be sufficient to say that the line was carried over fairly easy country to the north-east of Nagar (Untari) *via* Adhaora mile 91, Parasoan mile 98, Ramna mile 100, Gonda mile 109, south of Miral mile 110, Sugman mile 111, Potman miles 112, to Bahad Jadna mile 116, a village about ½ mile south of Garhwa and on the left bank of the Danro river, mile 116.

49. This is a large stream 600 feet wide. It is very shallow, being only 12 feet deep, and the highest flood mark reported by the villagers is only 15 feet above river bed. The current is reported to be very rapid; but as the bed is sand, and exhibits no indications of deep scour, it may be safely assumed that the current is not more than 6 feet per second. This river would require a bridge at least of 6 spans of 100 feet each, 30 feet from river bed to bottom of girder. The crossing is a good one in a long straight reach.

50. After crossing the Danro the line passes over fairly easy country, passing the villages of Jhura mile 120, Harayu mile 121, and Tildag mile 121. Thence it crosses the Tahleb river, mile 124, which is a rocky stream 600 feet wide, and which would require a bridge similar to that proposed for the Danro. The depth of the river, height of flood, and fall of bed, are similar to that river.

51. From the Tahleb river the line passes through jungle and easy ground, *via* Baroon mile 128 and Banalih mile 132, to Shalipar, mile 135, opposite Daltonganj on the left bank of the Koel river, where, according to the instructions received, work was stopped.

52. The bridges for the Danro and the Tahleb have been referred to above. Besides these, one of 3-50 would be required over the Bitha, mile 138, and one of 3-30 over another stream. For the remainder of the drainage two culverts of 10 feet span per mile would be sufficient to carry off the drainage.

53. The gradients will be on the average 1 in 500, nothing heavier than 1 in 200 being anticipated. The country is undulating and hilly, and affords facilities for an easy and cheap line. The bridges, culverts, and stations would be of stone as would also be the ballast.

54. Limestone and kunkur are procurable. The embankments and cuttings are likely to be an average of 3 or 4 feet; the latter will probably be all rock.

55. On the return march from Daltonganj the country was further examined with the view of getting a better line than that actually run, and one which, in the event of the survey operations being resumed next season, could be recommended for detailed survey.

56. This new line is shown on the accompanying map in a *full* red line to distinguish it from the route surveyed, which is shown by a *dotted* red line.

57. Between Daltonganj and Garhwa the proposed line does not differ very much from the original line; but from the latter place, with the object of avoiding the hills north of Untari, quite a new direction is taken.

58. Starting from Garhwa, mile 116 on survey line and mile 120 on proposed line, the proposed line runs north and north-east for about 5 miles, when, after passing Ukargurwa, mile 125 on proposed line, it turns due north to a gap between two detached hills to the west of Chingparba, mile 128 on proposed line. The ground passed over up to this point is not difficult.

59. At Garhwa, mile 129 on proposed line, there is a stream called the Sarosati nals 200 feet wide, to be crossed. It has a rocky bed and flood height of 15 feet. A bridge of 3-70 feet girders would suffice to pass the highest flood. The next stream, mile 129, is one of 60 feet in width, where a single 10 feet girder or 3-20 feet spans could be given. The latter would be preferable, as the embankment at this point would be low, and there would not be room for a deep girder.

60. The ground gradually rises steadily from Garhwa to the gap, mile 122, before mentioned. A short length of low land opposite Dalele and Ukhargatwa, mile 125, would have to be crossed with about a 10 feet bank and a 10 feet culvert. Beyond this and up to the gap there is broken ravine ground, in which some 3 or 4 culverts will be required.

61. North of the gap, through which a cutting for  $\frac{1}{2}$  a mile of an average depth of 10 feet and maximum of 35 feet will be required, the ground falls again gently to the Banki river, mile 117.

62. Three streams, one requiring a 10 foot and the other two 20 feet culvert each, are required before reaching the Banki. This stream has 250 feet width of bed and 350 feet between tops of banks.

63. The bed is sand, but at short intervals rock is visible in large masses. It is therefore believed that rock foundations may be calculated upon for this bridge, which should be 5 spans of 70 or 7 of 50 girders. The flood height is 15 feet above bed, the bottom of girders should therefore be 20 or 22 feet above bed river.

64. A little beyond the river another 20 feet bridge is wanted, after which no culverts are required up to Loka village, mile 115. Immediately north of Loka the Pipardaha, mile 115, is crossed. This requires a 50-feet bridge, and two other streams between this and Bardha, mile 113, require a 20 feet and 2-30 feet span bridges respectively. From this the line would skirt the hills up to within  $\frac{1}{2}$  a mile of Magardih, mile 110, where a sharp curve to the west is necessary.

65. The gradients from Garhwa up to Magardih are not likely to be more in any part than 1 in 200, or at the steepest 1 in 150, possibly in the gap, and the banks will not exceed an average of 5 feet.

66. The culverts and bridges that have been enumerated should suffice to pass all the drainage. Lime and building stone and ballast can all be got from the adjoining hills.

67. The land passed through is almost entirely jungle.

68. At Magardih, mile 110, the hills, which are the obstacle to the more direct line originally proposed *viz.* Untar and Alrai to Garhwa, become detached, are much diminished in height, and have long flat slopes instead of the abrupt and almost perpendicular sides which characterise the more westerly portions of this range. A favorable opening through which the line can pass exists at Magardih.

69. Search was made along the hills for a practicable gap south of Magardih. There is just the possibility that a line might be found from Chowasi, about 3 miles south from mile 103, in a south-easterly direction, emerging from the hills north of Kachna Pahar about 5 miles south-east of Chowasi. Another route might be found near and south of Samangira Hill, 4 miles south of mile 107, but this is very improbable.

70. It is believed that the route *viz.* Magardih is the best that can be found.

71. From Magardih the line will take a westerly course, and will skirt the spur of the hill for a short distance, after which it will strike out into open country.

72. From Magardih to Aisali, mile 104, there is some very rough broken ground, and several streams will have to be crossed between Magardih and Kailan (Kallean on the map), mile 108. One stream will require a 20 feet bridge. From Kailan to Aisali three streams, requiring respectively, one 10, one 20, and one 30 feet bridge.

73. West of Bala, mile 103, a large stream 60 feet wide is crossed. Again south of Makri,  $\frac{1}{2}$  mile north of mile 101, a stream 50 feet wide is crossed. East of Jagra, 1 mile north of mile 95, a stream 70 feet, and west of the same place a stream 40 feet wide, and at Rohini, mile 96, a stream 15 feet wide, are crossed; all of the above streams will require bridges of at least the full width of the stream as stated.

74. The works will not be heavy except in the broken ground between Magardih and Aisali, *i.e.*, from miles 103 to 109. The gradients over this length will not exceed 1 in 200. There will be high banks crossing some of the large ravines, but on the average the banks will not exceed 10 feet for this portion.

75. From Aisai westwards to Rohini and beyond Majgawan, opposite and north of mile 95, Unnara opposite and north of mile 91, and Budar opposite and north of mile 90, to the south of which places the line would run, the ground is fairly easy. The embankments will not be heavy here. There will be some rock cuttings, but nothing very extensive. Gradients are not likely to be heavier than 1 in 200. The streams already mentioned will, it is believed, pass all the drainage.

76. The Jhawn, mile 93, is the largest stream over this portion, and would require a bridge of 3-80 feet spans.

77. A slight change of the original route is made here, *viz.*, instead of running to the south of Kon it would pass to the north of it and of Ramgarh in 84th mile on proposed line, and turning through a gap in the hills, in 83rd mile on proposed line, about  $1\frac{1}{2}$  to 2 miles west of Ramgarh, it would pass along the hill-slopes facing the Sone river up to the village of Hardi, mile 76, and the crossing of the bone, mile 75, originally proposed.

78. This new portion was inspected on the return journey, and will give a better line than that first run.

79. The Pandanali, mile 98, near Kon, previously mentioned as requiring 3-50 feet bridge, will of course have to be crossed, and although the new crossing is lower down stream than that on the first line, there is not much additional drainage collected by the river in that distance.

80. Between the gap in the hills west of Rangach and the village of Hudia a large stream, mile 79, 200 feet wide, falls into the Sone. This would require a bridge of about 3-70 spans. Three other streams are met—one of 20, one of 30, and one of 10 feet width, each of which would require bridges of the spans noted, and another large stream of 170 feet width, mile 78, would require a bridge of 9-00 spans.

81. Along this portion, the work would be chiefly cutting the formation out of the side of the hills. This cutting is not likely to be anywhere more than 1 to 20 feet on the hill side, and for the most part would be only levelling off the formation with.

82. Culverts, aggregating 10 x 3-100 feet of water-way per mile, besides the larger streams already noticed, will pass all the drainage. The line can be nearly level all the way, with the exception of the points through the gap, where there will be a gradient of, say, 1 in 150 through the cutting, which is very short, and need not be more than 20 feet deep. It is all rock.

83. After crossing the Sone the original line is very closely adhered to all along the river bank round the Magesar Peak and Kunda Pahar, and northwards to the foot of the hills south of the Ghaggar river.

84. From this point, mile 60, instead of going over the hills, which is impracticable owing to the heavy gradients and works that would be required, the line takes a north-westerly course along and up the southern face of the hill rising on a gradient of 1 in 100 to 1 in 200.

85. This westerly course continues for 2½ to 3 miles, mile 17, till the end of the spur is reached, when the line curves round in a semi-circle, and takes an easterly course along the northern slope of the same spur for 3 miles in a straight line, but the distance with the unavoidable windings will not be less than 5 to 5½ miles.

86. The work on the greater part of this length, from where the line diverged to the north-west and the spur, and along the north face of the hills, will be rock cutting.

87. The rock is chiefly gneiss and iron-stone. The cuttings will be for the most part shallow, but in places they will be 20 or 30 feet deep on the hill side, where the line turns round said spur. On the average, however, the cuttings are not likely to be more than 1 or 5 feet.

88. The gradient will be very heavy all the way, i.e., 1 in 100 and 1 in 200, with occasionally short pieces of level to ease the engines when working up the incline.

89. At about ½ mile from the point at which the Ghaggar river is crossed a large stream, or rather ravine, is met in mile 10. This is a torrent in the rains, with a very steep fall, and the water comes down in large quantities with a great rush, bringing large stones and boulders with it. The best form of bridge will be a single span, which will have to be about 100 feet. The abutment and approaches will require heavy pitching, the stone for which is at hand in abundance.

90. We now come to the new crossing of the Ghaggar river, mile 51, which is 2½ miles in a straight line, and along the winding of the stream probably 3 miles higher up stream. The fall of the bed of the river is from 30 to 40 feet per mile, the level of the bed of the new crossing is therefore from 90 to 120 feet higher than it is at the original crossing, the reduced level of which is 71-00. Taking an average between 90 and 120 feet, we have 105 feet as the difference between the old and new crossings, which, added to 71-00, gives 820-00 as the reduced level of the new crossing. The high bank on the north side is about reduced level 950-00, or 140 feet above the river bed.

91. This, though a considerable height, can be overcome by having a cutting 30 to 40 feet deep at the edge of the high ground on the north bank and running back at one in 200 for about 1½ miles until the level ground south of Sidhi is reached.

92. The bridge would thus require to be from 90 to 100 feet high, which, considering the very difficult nature of the country, is not an extravagant proposal.

93. The hills on the south have long flat slopes, which admit of curving a way to the west with a thousand feet radius. A single span of about 120 feet will be the best form of bridge for crossing this river.

94. After crossing the Ghaggar another alternative line was examined passing to the east of Robitsingh mile 47, Hindukuri mile 43, Malhpur miles 37, Sukrat mile 32, and Ahrohra mile 19.

95. This route possesses many advantages over the original line. The undulations are much larger and flatter, the streams are less numerous, and there is much less necessity for rock cuttings.

96. The Belan river, mile 16, would be crossed at a point lower down stream, but it is believed that the bridge originally proposed, i.e., 3-30 feet spans, or at the most 3-34, would be sufficient. This river is crossed, as has been already noticed, on the Robitsingh and Ahrohra road, which is some miles below the river crossing by a bridge of 1-00 span, 2-27, and 2-15, aggregating 181 feet of water-way. A bridge of 3-35 will therefore be ample.

97. The Chavdai Parbh river, mile 38, is crossed at a point 8 miles above the original crossing, at which latter a bridge of 3-00 feet spans was proposed. It is estimated that 3-10 feet spans will be quite sufficient at the new crossing.

98. From the Chandar Parbh the line runs north-west and north until the descent from the plateau into the plains on the north west.

99. The hills at this point are not so high as they are over to the east along the Chander Parba river. They have long flat slopes in the first part of the descent affording facilities for fairly easy gradients, and it is only the hills immediately bordering the plain that any difficulty will be encountered.

100. The difference of level between the plain and the top of the plateau is roughly 300 feet, and it is proposed to overcome this difficulty by starting at the top with a cutting 30 feet deep, winding along the hills for 10 miles with a constantly falling gradient of 1 in 200, making a total fall of 21 feet in the 10 miles from mile 19 to mile 29, and having a 25 to 30 feet embankment at the foot of the hills. This appears to be the only feasible method of getting over the difficulty.

101. The difference between the plain and plateau is shown above as 300 feet, and the total of the cutting gradient and embankment is 321 feet. The 21 feet in excess could be very advantageously utilised in easing off the gradients, and making short level breaks in the otherwise continuous gradient.

102. After leaving the hills the line would run in a north easterly direction for 5 miles, and then run due north till it joined the original line just south of the village Garhwa (locally called Usra) about 6<sup>1/2</sup> miles from Mogulserai and following it up to Mogulserai.

103. The work along this part will be very light and similar in all respects to that along the original line.

104. The length of the line proposed for detailed survey is between 13 and 14 miles longer than that surveyed.

The causes of this increase are as follows —

I.—The necessity for making the line where it ascends the Sukrat-Robtisang plateau sufficiently long to have a practicable gradient. This adds nearly 4 miles to the length of the more direct but impracticable route.

II.—A like necessity makes owing from that plateau to cross the Ghaggur river and reach the low land bordering the Sone. This accounts for about 5 miles of the increase.

III.—The detour which has to be made between Kon and Garhwa in order to avoid the hills north of Untia. This increases the length between these two points by about 5 miles.

105. A map of the country from Mogulserai to Daltonganj on a scale of 1 inch to the mile, showing the lines originally laid down for examination and the line proposed for detailed survey, and a section across the Sone river on a scale of 100 to an inch, accompany this report.

No. 783R C, dated 16th August 1883

From—The Secretary to the Government of India, Public Works Department,

To—The Secretary to the Government of the North-Western Provinces and Oudh,  
Public Works Department

I am directed to acknowledge the receipt of your letter No. 1275W R of the 11th July 1883 forwarding a report of the railway reconnaissance between Mogulserai and Daltonganj, and in reply to express the satisfaction of the Government of India at this confirmation of the information contained in the progress reports of the Benares-Palamow Railway Survey for the months of April and May 1883.

2. I am to request that the Government of India may be furnished on an early date with sections and approximate estimate, under main heads, of the line reconnoitred, and also with all available information as to probable traffic, and with a full reply to paragraph 3 of Public Works Department No. 57IR C of the 12th June 1883.

3. I am also to request that arrangements may be made for a complete survey next cold season, and in this connection I am to forward extract from a note, dated the 4th August 1883, by the Consulting Engineer to the Government of India for State Railways, and copy of tracing referred to.

Note dated 4th August 1883, by the Consulting Engineer to the Government of India for State Railways

I think that the ascent and descent of the plateau somewhat to the west of the proposed line might be examined to ascertain whether a shorter ascent, than that proposed might be made following up the valley from Lutterspore, and whether there is no lower gap in the southern edge of the plateau, through which the line might pass and creep down the face of the hill which opp's it to be not very rugged instead of crossing the Ghaggur at high level. I think also that the neck of hills close to the Mun Jura Hill might be reconnoitred with the view of ascertaining whether a short tunnel at that point might not enable the line to be carried through the range into the valley of the Bunker somewhat in the direction of the blue lines which I have marked on the tracing scale 1 mile to the inch.

W. S. TREVOR, Colonel, R.E.,  
Secy. to the Govt. of India.

GOVERNMENT OF INDIA.  
REVENUE AND AGRICULTURAL DEPARTMENT.

**REPORTS ON THE STATE OF THE SEASON AND PROSPECTS OF THE CROPS FOR  
THE WEEK ENDING THE 25th SEPTEMBER 1883.**

**GENERAL REMARKS.**—During the week under report the weather has been fair over the greater part of India, and the rainfall correspondingly light. In the Madras Presidency and Mysore the dry crops in several districts are suffering from want of rain. In the Bombay Presidency the fall has been light and unequally distributed, and more is needed in Guzerat and the Southern Malabar Country. In Hyderabad and the Berars, on the other hand, the rainfall has been excessive, and a break would be beneficial. No rain fell in Sind during the week, and the river was, on the 24th September, 5 feet below the previous year's level. In Central India and Rajputana light but general rain continues, and prospects are improving. In British Burma, Assam, and Bengal the rainfall has been light, but the weather continues seasonable, and rice and other crops are progressing favourably, except in Behar and Central Bengal, where the crops on high lands need more rain. Heavy rain fell in the southern and eastern districts of the Central Provinces, and benefited the rice crop, but slightly injured cotton and millets. In the North-Western Provinces and Oudh the rainfall has been generally light, and confined to the early part of the week. The weather is now clear, and in several districts more rain is needed, but on the whole agricultural prospects are fair. No rain appears to have fallen during the week in the Punjab, but prospects there are reported to be fair or good.

Harvesting of millets and oil-seeds continues in Madras and Mysore, rice and the earlier *kharif* crops are being cut in Bombay, and the land is under preparation for the *rabi*. The damage from locusts in the Deccan has not proved as serious as was anticipated. Reaping of the *kharif* and ploughing and sowing for the *rabi* are also more or less in progress throughout North-Western and Central India. In Bengal the harvesting of early rice and jute is nearly finished, the outturn being, with some exceptions, fair.

Cattle-disease is decreasing in Burma, and is slight elsewhere.

A few deaths from cholera are still reported, and fever is somewhat prevalent, otherwise the public health has much improved.

Prices are either stationary or falling.

Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.
<b>Madras—(Sept. 26th)</b>		
Bellary	... 11 (average of two stations).	Standing crops wet generally good. Dry crops suffer from want of rain.
Kurnool	... 1·15 (average of six stations).	Standing crops withering in five talukas from want of rain, elsewhere good. Harvest <i>cumbar</i> and indigo, yield half to three-fourths. Cattle-disease in seven talukas.
Ganjam	... 1·59 (average of thirteen stations).	Standing crops generally thriving. Fever and small-pox continue slight.
Kistna	... 1·96 (average of six stations).	Standing crops dry generally withering. <i>Cholam</i> suffering from grub in one taluk. Rain wanted throughout. Harvest of indigo, yield half to three-fourths. Small-pox general; fever, guinea-worm, and cattle-disease slight in parts.
Chingleput (Madras)	... 2·22 (average of three stations).	Standing crops withering for want of rain in all but one taluk. Harvest of <i>kar</i> , paddy, &c., yield quarter. Small-pox and cattle-disease slight in parts.
Coimbatore	... 2·38 (average of ten stations).	Standing crops <i>cholam</i> damaged by insects in one. Rain wanted in eight talukas. Four deaths from cholera in two talukas; fever and small-pox in parts.
Tanjore	... 1·92 (average of seven stations).	Standing crops generally good, but rain wanted in four talukas. Harvest paddy, <i>cholam</i> , <i>cumbar</i> , and gingelly, yield below average. Twenty-nine deaths from cholera.
Madura	... 1·96 (average of six stations).	Standing crops failing, except in two talukas. Harvest paddy and dry crops in parts.
Malabar	... 2·23 (average of eleven stations).	Standing crops good. Harvesting continues. Second crop cultivation progressing. Small-pox in nine talukas; fever in three talukas; 5 deaths from cholera in one taluk.
Travancore	...	Harvesting continues. Preparations for next cultivation partly begun. Fever and dysentery continue. Rain generally wanted for dry crops. <i>General Remarks.</i> —General prospects favourable.
<b>Bombay—(Sept. 26th)</b>		
Kurnachee	... No rain	Weather cool with high winds. River at Kolri on 24th 11 feet 8 inches against 17 feet 5 inches on same date last year. Small-pox in four villages in district, 9 fresh cases, 1 death, 5 remaining sick; fever in nine talukas. Cattle-disease in five talukas. Wheat, red rice, and <i>bajri</i> in Kurnachee 21, 24 and 30, in Daula 32 and 32, in Sakro 16, 27 and 36, and in Shahbandar 20, 32 and 42 lbs. per rupee, respectively.
Hyderabad	... ....	River has fallen 2 feet 11 inches since last week and was 6 feet lower on 24th instant than on same date last year. Small-pox in three, fever in six, and cattle-disease in three talukas. Wheat 26, <i>bajri</i> 37, <i>jevari</i> 48, red rice 26, and white rice 20 lbs per rupee.

Presidency or Province and District	Rainfall for week under report	State of agricultural prospects
<b>Bombay—contd.</b>		
Ahmedabad	..	Crops healthy. Rain wanted for rice. Cholera only 1 death, slight fever in some districts. <i>Bajra</i> 27 and wheat 23 lbs per acre. Total rainfall 43.30. Crops in good condition, except in Kadi division where more rain is wanted. <i>Bajra</i> good. Cholera in mild form in parts of Nasik, but less in <i>Chalisgaon</i> in parts of Kadi division. <i>Bajra</i> 26 and wheat 22 lbs per acre.
Baroda	46	Total rainfall 43.30. Crops healthy. Slight cholera in Butwar and Pipli. Locality suffering from cholera. <i>Jau</i> 37 and maize 43 lbs per acre.
Burat	1.09	Rain throughout the district. <i>Bajra</i> 27 and <i>Challisgaon</i> rice still in the field, owing to continuous and heavy rain. Corn broken in two villages of Dindore (Dinde) Chal division, scattered 20 acres. Losses throughout the district during mid-August 1000 lbs in few villages of Simnar, Beglin, Kalwan and Panti. Wheat 28 lbs per acre, and rice 22 lbs per acre.
Nasik	Rain throughout the district	Total rainfall 77.13, being 10.15 lbs per acre. Abnormal temperature, warm & cool. Vomiting and fever, except on 23rd. Abnormal wind from northward with six deaths from cholera. <i>Bajra</i> 39 and maize 38 lbs in Poona bays 34 and more elsewhere.
Colaba (Bombay)	4.90 from 23rd to 25th heavy rain on 25th	<i>Kharif</i> crops in good condition. Sowings of <i>rabi</i> in progress throughout the district. <i>Celci</i> 11 bushels, 11 deaths. <i>Bajra</i> —maximum 60 lbs in Jamshedpur, minimum 36 in Kopargaon, and <i>jowar</i> —maximum 72 lbs in Jamshedpur, minimum 48 in Kopargaon.
Poona	Light showers during the week	Total rainfall 33.22. <i>Kharif</i> crops good. <i>Rabi</i> sowings commenced in places. No plague by locusts. Cholera 69 cases, 11 deaths. <i>Jau</i> 62 and <i>bajra</i> 26 lbs per acre.
Ahmednagar	Rain in all districts maximum at Nasik, 32 mmouras at Junikhed, 11	<i>Kharif</i> crops in good condition. Sowings of <i>rabi</i> in progress throughout the district. <i>Celci</i> 11 bushels, 11 deaths. <i>Bajra</i> —maximum 60 lbs in Jamshedpur, minimum 36 in Kopargaon, and <i>jowar</i> —maximum 72 lbs in Jamshedpur, minimum 48 in Kopargaon.
Sholapur	.. 44	Total rainfall 33.22. <i>Kharif</i> crops good. <i>Rabi</i> sowings commenced in places. No plague by locusts. Cholera 69 cases, 11 deaths. <i>Jau</i> 62 and <i>bajra</i> 26 lbs per acre.
Dharwar	No rain except at Hangal, where only 10 fell	Rain badly wanted for crops especially rice, rice withering. Cotton sowings still in progress. <i>Sugarcane</i> and <i>coughing</i> , cut in Hangal and Kod talukas. In Nagmund, trading bad, and soil quite lands being prepared for sowing of wheat, gram &c. Public health good. Slight cattle losses in Hangal and Kalghidgi. <i>Jau</i> 81 to 10 lbs and rice 31 to 26 lbs per acre.
Kanara	Karwar 41, Kumbtia, 6 Nasik, 34, Hal hal, 13	Total rainfall 131.44. Rice plants cut above ghat. Rice harvest begun on coast. Phukking, but not common. Small pox, 1 death each in Kumbtia and Ilorwur. Common rice in Karwar 12 $\frac{1}{2}$ in district average 11 $\frac{1}{2}$ lbs per acre.
Rajkot	.. 28	General health fair. Weather cool and cloudy. Total rainfall 26.37. <i>Bajra</i> 29 and maize 32 lbs per acre.
<b>Bengal—(Sept 26th)</b>		
Chittagong	.. 1.22	Weather hot. Prospects good. Outturn of <i>rice</i> increased. Transplanting of <i>amap</i> rice finished. Prices steady. Cattle-disease still continues.
Dacca	57	Prospect of crops good. <i>Ajrice</i> and <i>jute</i> being cut. Prospects of both early and late rice good, early rice being harvested yield estimated at twelve anna average crop. Transplanting of late rice finished. More rain necessary in parts of districts. Price of common rice stationary. Health of people generally good. Fever reported from Burdwan and Basantpur subdivisions.
Moorshedabad	Nil	Weather very hot and close. Harvesting suffering much for want of rain. <i>Bhado</i> harvested almost completed. Outturn expected to be fair. Public health good.
Rajshahiye	62	Weather dry with light clouds. Crops want rain especially in the north. Public health with some exceptions good for the time of year.
Burdwan	Nil	Rain much wanted, especially for crops on high land. Public health fair.
Rungpore	1.53	Weather cloudy. Prospects of crops fair. Fever prevalent. Prospects favourable. More rain wanted. Autumn crops have yielded eight to ten annas.
Bhagalpur	43	Prospects of crops improved by rain. Fever slightly increased. Transplanting of paddy over. Rain much wanted in South Behar. <i>Bhado</i> crops nearly gathered. Cholera and fever prevalent. Season unhealthy.
Birnesh	2.06	Crops doing well, but more rain wanted. Transplanting still going on. <i>Bhado</i> crops being harvested with fair outturn. Prices of food grains stationary. Public health fairly good.
Patna	2.73	Weather warm and close. <i>Bhado</i> harvest nearly completed. Rice prospects favourable. General health good.
Durbhunga	.. 94	Crops doing well, but more rain wanted. Transplanting still going on. <i>Bhado</i> crops being harvested with fair outturn. Prices of food grains stationary. Public health fairly good.
Hazaribagh	.. ■	Weather warm and close. <i>Bhado</i> harvest nearly completed. Rice prospects favourable. General health good.

Presidency or Province and District	Rainfall for week under report.	State of agricultural prospects.
Bengal—contd. Cuttack	1.31	Weather cloudy. Early rice being reaped with prospects of average return. Jute crop being weeded and thriving well. Public health good. <i>General Remarks</i> —Rain fell in almost all districts during the week; it has done much good in Behar where more is still wanted. In Bengal proper, it has been generally very slight except in Jalpaiguri and Cooch Behar, and the rice crop on the higher grounds has begun to suffer in several places. In Orissa and Central Nagpur the rainfall has been adequate and agricultural prospects are favourable. Early rice and jute have almost terminated, but with a fair outcome except in some places where they are said to have yielded much below average crop. In Behar reaping of <i>Khurda</i> crops is being pushed on generally with expectation of a good average outcome except in Muzaffarpur where they were greatly destroyed by the late inundation. Fever is reported to be prevalent in some districts, but the general health of the province is still fair.
M. W. Provinces and Oudh—		
Benares (Sept. 25th)	Nil	More rain required, none having fallen during the week. Fever continues amongst men. Prices stationary.
Allahabad ( " 20th)	Nil	Rain ceased on 22nd, since which date the weather has been fine and not dry.
Gorakhpur (" 23rd)	Rain in all talukas during the week varying from 6.8 in Deoria to 3 in Sadi taluk.	Crops flourishing, prospects excellent. Cholera in jut abating, no fresh cases for the last three days; several cases in the city during the week, otherwise general health exceptionally good. Prices steady.
Jhansi (" 24th)	Good rain everywhere except Sadi	<i>Aharif</i> prospects fair, but a little more rain will do good. Prices falling. Health of people and cattle good.
Agra (" 25th)	Nil	No cholera, fever in two regiments. Prices steady. No cattle disease reported. More rain required.
Bareilly (" " )	Nil	Crops good except jut. Harvest progressing. Cholera almost disappeared, some fever prevails.
Meerut (" 26th)	Nil	West wind. Cool nights and mornings. Rabi ploughings in active progress. Some peas and carrots already sown. A few cases of cholera in Meerut, otherwise health good. Labour abundant. Supplies sufficient and prices steady.
Kumaun (" 25th)	Rain on 21st	Weather fair. <i>Madua</i> has begun to be reaped in some places. Health good. Cattle disease continues. Prices in general.
Lucknow (" " )	1 at Mathruban on the 20th instant	State of crops good, <i>khari</i> crops doing very well. Condition of people and cattle good. Markets well supplied. Prices stationary.
Partabgarh (" " )	Sadi 7, Kunder, 2.3 and Patti 1	Prices of grain falling. The want of rain has saved the crop in Partabgarh.
Sitapur (" " )	4 Sadihudi, 6 Biswan, 19 Moirka, 3	Prospects good, wheat and rice somewhat dearer, barley and <i>sawana</i> cheaper.
Fyzabad (" " )	Nil	Prospects of <i>akhari</i> crops good. Condition of cattle and public health good.
Rao Barth (" " )	Sadi 6.3, Dighajun 2.0, Dalmia 2.7, Saloni 5	Weather favourable. Harvest prospects good. Prices slightly falling. Supplies sufficient. General health good.
Cawnpore (" " )	Good fall on 15th and 16th in all talukas	Weather good. Crops except rice doing well. General health of people good. Cattle disease still reported in Barth and Dalmia, but of a mild nature. Prices stationary.
Farrukhabad (" " )	.....	Weather bright and rather hot sun. Nights and mornings in the cooler. Many season apparently closed. An outbreak of fever in Chhatarpur district.
Punjab—(Sept. 25th).		<i>General Remarks</i> —There was a fall of rain in some districts in the early part of the week, but the weather in the latter part seems to have been clear and sunny generally, and the rainy season appears to be over. More rain is however wanted in many districts. The prospects of the crops are on the whole fair. The cholera in Gorakhpur jut has abated, but there have been cases in the city.
Delhi	....	Health good. Prices slightly fallen.
Hissar	....	Health good. <i>Khari</i> crops thriving. <i>Rabi</i> sowings commenced. Prices stationary.
Umballa	....	Health good. <i>Aharif</i> yields expected to be below the average. Rain wanted. Prices stationary.
Jullundur	....	Health and <i>Khari</i> prospects good. Prices falling.
Amritsar	....	Health good. Prices stationary.
Sialkot	....	Health and harvested prospects good. Prices falling.
Ferozepore	....	Health and <i>Khari</i> prospects good. Prices falling.
Lahore	....	Health and <i>Aharif</i> prospects good. <i>Rabi</i> ploughing commenced. Prices stationary.
Rawalpindi	....	Fever in two talukas, health elsewhere good. Crop prospects average. Prices falling.
Mooltan	....	Health and crop prospects good. Prices stationary.
Dera Ismail Khan	....	Health good. Crops suffering. Prices steady.
Peshawar	....	Health good. Rain wanted. Prices falling.
		<i>General Remark</i> —There has been no rain during the week. Health and <i>Khari</i> prospects are generally good.

Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.
<b>Central Provinces—(Sept. 26th)</b>		
Nagpur .....	4.80	Weather cloudy and hot. Recent heavy rain following upon the long drought has done some injury to <i>kharif</i> crops. A break needed. Cholera abating.
Jubbulpore .....	.50	Weather clear with bright sunshine. Crops thriving. Wheat 25 and rice 11 seers per rupee. Health good.
Baugar (Sept. 25th) .....	...	Weather clear and hot. Prospects favourable. Rain required for ploughing operations for <i>rabi</i> sowings. Prices stationary. Health good.
Beoni .....	3.9; rain daily	Weather unusually hot. Cotton and other <i>kharif</i> crops thriving. Mung crops being reaped. Four deaths from cholera. Price falling.
Hoshangabad .....	.91	Weather hot and cloudy. <i>Kharif</i> crops thriving. Weeding continues. Health good. Wheat 15 and rice 9 seers per rupee.
Khandwa .....	1.33; occasional rain	Prospects good. Minor crops nearly ripe. Eleven deaths from cholera. Prices steady.
Raipur .....	5.6	Prospects favourable. A few cases of cholera in town and cantonments. Prices steady.
Bamhalpur (Sept. 22nd) .....	2.71	Weather favourable. Rice on high lands stunted. Fever increasing. Rice 36 seers per rupee.
<i>General Remarks.</i> —There has been heavy rain in the south and east of the provinces which has been very favourable to rice, but has done some injury to the cotton and <i>millet</i> crops; in Nagpur and Wardha in the north of the provinces rain has been slight and these crops are reported to be promising well.		
<b>British Burma—(Sept. 26th)</b>		
Akyab (Sept. 24th) .....	4.18	Total rainfall 171.41. Eight deaths from cholera in district, three in town, otherwise public health good. 75 deaths of cattle in two townships elsewhere health of plough cattle good. Transplanting nearly over. Season favourable. Crops healthy.
Rangoon .....	0.64	Total rainfall 70.49. Five deaths from small-pox, otherwise public health good. Price of paddy from Rs. 97 to Rs. 87 per 100 baskets.
Bassein .....	1.01	Total rainfall 80.62. Public health good. 14 deaths of cattle in Thegwin township and 7 in Bassein township. Plants in good condition. Price of paddy from Rs. 80 to Rs. 100 per 100 baskets.
Amherst (Moulmein) .....	6.42	Total rainfall 163.94. Public health and health of cattle good. Crops healthy. In Moulmein town public health and health of cattle good. Progress and general appearance of crops good. No damage from drought, floods or insects.
Toungoo .....	2.17	Total rainfall 72.6. Public health and health of plough cattle good. Transplanting progressing.
Kyaukphyoo (Sept. 15th) .....	9.07	Total rainfall 151.83. Four deaths from cholera. 15 heads of cattle died in the Myathin township. Price of paddy Rs. 25 per 100 local baskets. Paddy plants healthy.
Sandoway ( " " )	12.50	Total rainfall 191.25. Public health good. Crops healthy. Public health and health of cattle good. Ploughing and sowing progressing. Some of the crops in the Aingkalawng, Hawley, and Mountanga circles, and Hlun township have been destroyed by floods. Transplanting going on in Tamanong and Hlun townships. Ploughing wages 60 baskets of paddy per man in Hlun township. Price of paddy from Rs. 90 to Rs. 100 per 100 baskets.
Pegu .....	1.67	Total rainfall 111.33. Public health good. Slight cattle-disease in Kaonba circle and Paunglin township. No deaths reported. Crops well forward. Season most favourable. Price of paddy Rs. 85 to Rs. 90 per 100 baskets.
Tharrawaddy .....	1.40	Total rainfall 87.17. Public health good. 20 deaths of cattle in Tapin and Sangwe townships. Health of plough cattle in all other townships except Gyobingouk where slight disease prevails, good. Ploughing, sowing, and transplanting progressing. The damaged crops last reported are being replaced. More rain wanted in northern circle of Gyobingouk township. Price of paddy from Rs. 98 to Rs. 100 per 100 baskets.
Frome .....	0.28	Total rainfall 39.01. Public health good. Health of cattle also good. Only 12 deaths from small-pox reported. Ploughing and planting progressing. Transplanting nearly finished. Paddy crop in good condition. Price of paddy Rs. 82 per 100 baskets.
Thonegwa .....	.39	Total rainfall 71.12. Public health good. Health of cattle good. 8,600 acres reported to be destroyed by floods in Thein circle, Donabyo township. Destruction of crops by floods also reported from Shawaylong, Pantanaw, Zandom, and Thonegwa townships. Supply of seedlings for replanting insufficient. Prospects in Dadejeh and Pyapon townships good. Price of paddy from Rs. 80 to Rs. 95 per 100 baskets.
Henzada .....	.78	Total rainfall 70.11. Three deaths from small-pox in Henzada township, otherwise public health and health of cattle good. Transplanting completed in Henzada sub-division and progressing in Myamoung sub-division. Seedlings and plants in good condition.

Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.
<b>British Burma—contd.</b>		
Thayetmyo	...	Total rainfall 28·57. Public health good. Fifty-three deaths of cattle in Myeik. About half rice crops promise fairly, remainder has suffered much from drought and though plentiful rain fell last night cannot wholly recover.
Sawaggyin	...	Total rainfall 128·89. Public health and health of cattle fair. Ploughing finished. Transplanting and sowing about five-sixths done.
Tavoy	...	Total rainfall 179·40. Public health and health of cattle good. General appearance of crops good. Price of paddy Rs. 65 per 100 baskets. Total rainfall 133·0. Public health and health of cattle good. Area ploughed 34,000 acres and seed sown. Crops healthy. Prices of paddy Rs. 75 per 100 baskets.
Mergui (Sept. 8th & 15th)	Week ending 1st September 1888, 8·80; week ending 8th September 1888, 18·15; week ending 15th September 1888, 7·40.	<b>General Remarks.</b> —Public health good. Cattle deaths on the decrease. Rainfall for the week all over the province except the Tenasserim division, less than the rainfall for the corresponding week last year and total rainfall up to date considerably less than last year. Agricultural operations progressing favourably and prospects of crops reported good. In parts of the Thonogwa district the crops have suffered from flood, and in parts of Thayetmyo the crops have suffered from drought. Price of paddy slightly fallen.
<b>Assam—(Sept. 26th)</b>		
Gauhati	...	Weather seasonable. Mornings cool and occasionally foggy. Transplanting of <i>sati</i> paddy nearly over. Prospects of other crops favourable. Public health fair. Cattle disease still prevalent.
Sylhet	...	Crop prospects favourable except in the case of sugarcane, which is backward in places. Cholera and small pox reported in parts, but public health generally good.
Cachar	...	Weather cloudy with slight rain. Transplanting of <i>sati</i> crops finished. Reaping of <i>mai</i> crops progressing. Common rice 16½ seers per rupee. No small-pox reported.
Dibrugarh	...	Weather rainy. Prospects of <i>sati</i> <i>dhan</i> good. Public health good.
<b>Mysore and Coorg—(Sept. 26th)</b>		
Bangalore	...	Dry crops in the district in urgent need of rain. Prospects dependent on early rainfall. Health good.
Mysore	...	Standing crops generally in fair condition, but in need of rain. Harvesting of <i>karu</i> , <i>ragi</i> , paddy, oilseed, &c., in progress. Prospects fair.
Mercara	...	Prospect of crops good. Cutting of <i>ragi</i> crop commenced in North-East Coast. Prices falling.
		<b>General Remarks.</b> —Little or no rain during the week. Crops withering in parts of Tumkur and Kolar districts. In Shimoga and Kadru districts standing crops reported in good condition and agricultural operations continue. Prospects fair and general health good. No material change in prices.
<b>Bihar &amp; Hyderabad—(Sept. 26th)</b>		
Amaroti	...	Crops have suffered from excessive rain. A break is necessary. Wheat 16 and <i>juari</i> 26 seers per rupee.
Akola	...	Crops generally in good condition, but a break in weather is needed.
Hyderabad	...	Total rainfall from 1st January 21½. Standing crops prospering. Reaping of <i>khari</i> crop continues. Cholera broke out in a few villages of one taluk; fever and ague prevail in another taluk. Prices—wheat 16, coarse rice 10½, white <i>juari</i> 24, yellow <i>juari</i> 27, and <i>tar</i> 26 seers per agraund agraund rupee.
<b>Central India States—(Sept. 26th)</b>		
Indore	...	Weather warm. Prospects good.
Morar (Gwalior)	...	Fever in Lashkar. Prospects good. Prices stationary.
Gorma	...	Prospects good.
Malwa	...	No report received.
Neemuch	...	Reaping of <i>makka</i> in progress. Weather warm. Public health good.
Seoni	...	Health and crops good. Wheat 23 seers 8 chittacks per rupee.
Bhopal	...	No report received.
Agar	...	Weather clear. Agricultural prospects satisfactory.
Gahar	...	Weather fine with occasional clouds. Prospects and public health good.
Montgomery, Bihar (Bengalpur)	...	Prospects favourable. Health good. Prices stationary. No report received.

1888 SUPPLEMENT TO THE GAZETTE OF INDIA, SEPTEMBER 29, 1888.

Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.	
<b>Rajputana—</b>			
Abn (Sept. 28th)	23		Weather clear and seasonable.
Sirohi (,, 23rd)	07		Tanks and wells full. Health good. Prospects fair. Weather warm.
Marwar (,, 21st)	No rain		Four months' water in Jodhpore city. Tanks and wells filling up. Health good. Crops good. Weather partially cloudy, warm, and close. Prospects favourable. Another general fall of rain would vastly improve the new and the damaged crops, and ensure a tolerably good harvest. Prices stationary.
Meywar (,, 23rd)	26		Slight showers. Tanks and wells very good. Health good. Crops good.
Harowti (,, 22nd)	Nil		Rabi operations in progress. More rain wanted. Weather clear. Heat great. Health good. Prices stationary.
Jhallawar (,, 14th)	11.21		Tanks full; wells nearly so.
Do. (,, 21st)	13		Sufficient rain reported from all districts. Health good.
Ajmere (,, 25th)	No rain		Heat excessive. Ground being prepared for rabi. Health good.
Jeypore (,, , )	Nil		Kharif prospects improved. More rain wanted in Kishangbar for wells and tanks. Health good. Prices steady.
Bhuripore			No report received.
Ulwar (Sept. 25th)	No rain		Preparations for rabi commenced. Prices falling. Health good.
<b>Nepal—(Sept. 20th)</b>			
Katmandu	1.01		Weather constantly cloudy and showery with some thunder. Prospects good.

E. C. BUCK,  
*Secy. to the Govt. of India.*

**SUPPLEMENT TO THE GAZETTE OF INDIA, VICTORIA, &c., 1883.**

GOVERNMENT OF INDIA.

**REVENUE AND AGRICULTURAL DEPARTMENT.**

**REPORTS ON THE STATE OF THE SEASON AND PROSPECTS OF THE CROPS FOR THE WEEK ENDING THE 2nd OCTOBER 1883.**

**GENERAL REMARKS.**—In the Madras Presidency rain has fallen in varying quantities in all districts except Travancore, but more is still needed for dry crops in a few places. In Mysore the dry crops are withering in all districts from want of rain. In the Bombay Presidency rain has fallen in most districts, but more is urgently wanted in the Southern Mahatta Country. No rain fell in Sind during the week, and the river was on the 1st instant 2 feet 4 inches below the previous year's level. In Hyderabad and the Berars the rainfall has been again heavy and a break is needed. In Rajputana and the Central India States, light and fairly general rain fell during the week, and prospects are on the whole good. In British Burma rain has fallen in all districts and the agricultural condition of the province continues satisfactory. In Assam and Bengal the rainfall has been general, and the weather continues seasonable. More rain is however wanted in several places in the Bengal Presidency for the transplanted rice crop, especially on the high lands. Rain has continued in the southern and eastern districts of the Central Provinces, and the prospects of the rice crop are improving. A break is needed in Nagpur and Wardah for the cotton and millets and in the north of the provinces for preparation of ground for rabi sowings. In the North-Western Provinces and Oudh no rain has fallen during the week, and the rainy season is believed to be over. Prospects are on the whole fair, but more rain would be beneficial in many districts. In the Punjab the rainfall of the week has been confined to three districts only, but prospects are on the whole good.

Harvesting of paddy, *cumboo*, *ragi*, gingelly, &c., continues in the Madras Presidency, and the *kharif* is being cut in a few places in the Bombay Presidency. *Rabi* sowing is also in progress in Bombay. The damage from locusts is reported to be slight. In the North-Western Provinces and Oudh, Panjab, Rajputana, and the Central India States the *kharif* harvest is in progress and ploughing and sowing for the *rabi* are also commencing. In Bengal the early crops have been almost all harvested, with a generally fair outturn, though in some districts the jute crop is below the average.

There has been no increase of cattle-disease in British Burma, and elsewhere it is slight. A few deaths from cholera are still reported and seasonal fever is prevalent in some places, otherwise the public health is good.

Prices are either stationary or falling.

Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.
<b>Madras—(Oct. 3rd).</b>		
Bellary	... 43 (average of five stations).	Standing crops wet generally good. Dry withering in black and red soils.
Kurnool	... 1.86 (average of seven stations).	Rain still wanted in three talukas. Standing crops withered in Cum- buna division; elsewhere good. Harvest <i>cumboo</i> and indigo, yield one-half to three-fourths. Cattle-disease in six talukas.
Ganjam	... 1.10 (average of seventeen stations).	Standing crops generally thriving.
Distra	... 1.51 (average of twelve stations).	Dry crops generally recovering, but still need rain. Harvest <i>cumboo</i> and gingelly, yield below half. Small-pox and cattle-disease in parts.
Chingleput (Madras)	... 51 (average of seven stations).	Standing crops withering for want of rain. Harvest <i>tar</i> , <i>puldy</i> , &c., yield one-fourth. Measles and cattle-disease slight in parts.
Cochinates*	... 60 (average of three stations).	Dry crops want rain in nine talukas. In one improved from recent rain. Harvest paddy, <i>cholam</i> , <i>ragi</i> , and <i>cumboo</i> in parts, yield average. Nine deaths from cholera in two talukas. Fever and small-pox in parts.
Tanjore	... 92 (average of four stations).	Standing crops generally good, but rain needed in all but three talukas. Harvest <i>puldy</i> , <i>cholam</i> , <i>ragi</i> , <i>cumboo</i> , and gingelly, yield below average. 32 deaths from cholera.
Madras	... 53 (average of four stations).	Standing crops failing. Harvest paddy in two talukas, yield average in one and poor in the other.
Malabar	... 27 (average of six stations).	Standing crops good. Harvest continues. Second crop cultivation progressing. Small-pox in nine talukas; fever in four. Cattle-disease slight in one taluk.
Travancore	... .....	Harvesting almost over. One death from small-pox; fever and dysentery prevail. Rain still needed in parts. <i>General Remarks.</i> —General prospects fair.
<b>Bombay—(Oct. 3rd).</b>		
Kurrachee	... No rain.	River at Kori on 1st 9 feet 10 inches against 11 feet 2 inches on same date last year. Rats doing some damage to rice crops in talukas Tatta and Shahbandar. <i>Kean worm</i> still in Tatta. Fever in two talukas. Cattle-disease in four talukas. Small-pox prevalent in three villages, in districts 14 fresh cases, 5 deaths, 1 remaining sick. Wheat, red rice, and <i>bajri</i> in Kurrachee 24, 28 and 34, in Sehwan 22 and 35, in Ghorabari 20, 30 and 36, and in Shahbandar 20, 32 and 42 lbs. per rupee, respectively. <i>Korj</i> harvesting in progress. River has fallen 1 foot 10 inches since last week and was 2 feet 4 inches lower on 1st October than on the same date last year. Small-pox in one, fever in three, and cattle-disease in three talukas. Wheat 25, <i>bajri</i> 30, <i>jari</i> 10, red rice 26, and white rice 22 lbs. per rupee.

Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.
<b>Bombay—contd.</b>		
Ahmedabad	.. 27	Total rainfall 20.05. Crops healthy. Slight fever in some talukas. <i>Bajri</i> 24 and wheat 25 lbs per rupee.
Baroda	.. 72	Total rainfall 45.14. Crops in good condition. Public health fair. Cholera decreasing in Nasarai division. <i>Bajri</i> 27 and rice 21 lbs per rupee.
Surat	.. 4.01	Total rainfall 51.81. Crops healthy. Cholera in Pardi, 14 cases, 3 fatal, 11 recovered. Destruction of locusts carried on. <i>Jwarti</i> 40 and <i>mughi</i> 42 lbs per rupee. Cotton, <i>bajri</i> and <i>raj</i> damaged. <i>Rabi</i> sowings retarded for want of buck. Locusts throughout the district doing damage to crops in rare cases. No cholera. Wheat 28, <i>bajri</i> 28, and rice 22 lbs per rupee.
Nanik	.. Heavy and continuous rain throughout district.	Cotton, <i>bajri</i> and <i>raj</i> damaged. <i>Rabi</i> sowings retarded for want of buck. Locusts throughout the district doing damage to crops in rare cases. No cholera. Wheat 28, <i>bajri</i> 28, and rice 22 lbs per rupee.
Colaba (Bombay)	.. slight rain daily, 1.97	Total rainfall to date 79.00, being 10.79 above average. Abnormal temperature, 3 to 1 cool. Vapor in air normal. Abnormal wind northwesterly. Thunder on 27th and 28th.
Pecra	.. Good rain throughout district.	Cholera has almost disappeared. <i>Bajri</i> 40 and <i>raj</i> 40 in Poona. <i>bajri</i> 34 and <i>raj</i> 33 lbs per rupee.
Ahmednagar	.. Rain in all talukas—maximum at Bhingonda 8.99, minimum at Kanganaur, 3.05	The excessive rain is reported to have injured the <i>bajri</i> crop in some places and to have retarded the sowing operations for the <i>rabi</i> crops. Cholera 16 adults, 15 deaths. <i>Bajri</i> maximum 60 lbs in Jamkhedi, minimum 36 in Kopargao. <i>Jwarti</i> —maximum 72 in Jamkhedi minimum 48 in Kopargao.
Sholapur	.. 3.46	Total rainfall 36.08. <i>Kharif</i> crops in good condition. <i>Rabi</i> sowings commenced everywhere. Cholera 32 cases, 18 fatal. <i>Jwarti</i> 63 and <i>bajri</i> 51 lbs per rupee.
Dharwar	.. Slight rain at nine out of fourteen stations, maximum being 60 at Hubli, and minimum 12 at Kuniggi.	Rain wanted urgently everywhere both to save standing crops which are withering and to enable late crops, including cotton, in some parts to be sown. <i>Ragi</i> and <i>rajan</i> being harvested in western talukas. Cotton seed has not germinated well in some talukas for want of sufficient moisture. Public health fair. Prices steady.
Kanara	.. Kolar 4.63, Kurnool, 3.11, Surat, 1.8, Bellary, 1.6	Total rainfall 136.07. Small-pox in Honavar. Rice harvest continues on coast. Common rice in Kolar 12½, in district average 14½ acres per rupee. Weather fair.
Rajkot	.. 60	Total rainfall 25.07. General health good. Weather cool. Cholera in Papiwai, Und, and Chavanga. <i>Bajri</i> 29 and <i>raj</i> 31 lbs per rupee.
<b>Bengal—(Oct 3rd)</b>		<i>General Remarks</i> —Rain in most districts of the Presidency. Heavy in some but urgently wanted in the Southern Maharashtra Country. Rain low in kind. <i>Kharif</i> harvested in a few districts. <i>Rabi</i> sowing in progress. Little damage from locusts. Slight fever, small pox, and cattle-diseases in a few places.
Chittagong	.. 7.14	Weather seasonable. Prospects favourable. Rain has done good to standing crops. Prices steady. Cattle disease still continues.
Dacca	.. 1.29	Anasari and jute being cut. Prospects of crops in Nawabganj quite favourable owing to sudden rise of water.
24-Pergunnah (Calcutta)	.. 2.26	Prospects of late rice continue favourable, but toddy jam is required. Threshing of early rice still going on. Price of common rice stationary. Health of people generally good.
Moorschedabad	.. 67	Weather hot and cloudy with occasional slight showers. Rainfall during week very beneficial to late rice crop which has however suffered greatly from late drought. A good deal of fever in north of district.
Rajshahi	.. 34, slight rain in north	Weather generally clear. Rain urgently wanted for transplanted paddy. Sugarcane fair.
Bardwan	.. 43, Cutwa, 3.54, Cutwa, 2.64, Rambangpur, 0.6.	Rice crops likely to suffer seriously if rain does not fall immediately, in Cutwa especially. Prospects are unfavourable. Public health fair.
Bengalore	.. 94	Weather seasonable. Prospects of crops fair. But more rain is wanted. Fever prevalent in some places.
Bhagalpur	.. Nil	Rain urgently wanted for high land paddy. Otherwise prospects favourable.
Purneah	.. 24	Prospects of crops fair. More rain wanted. Fever prevalent.
Patna	.. 1.12	Gathering of <i>bhadai</i> crops nearly completed. Much rain wanted in South Bihar. 6 holtas still reported from Roher sub-division.
Durbhanga	.. 1.45	Weather hot. Rain badly wanted for rice crop which was looking very well. Outturn of <i>bhadai</i> crops fair.
Hazaribagh	.. 1.05	Days warm. Mornings and evenings cool. <i>Bhadai</i> crops harvested with a fair outturn. Fields being prepared for <i>rabi</i> crops. A general want of rain being felt for standing paddy crop. Public health good.
Cuttack	.. 7.1	Weather hot and clear. Early rice being reaped and gathered. Late rice growing well. Prospects of crops good. Public health good. Cattle disease in some places in Kendrapara sub-division.
		<i>General Remarks</i> —Rain in varying quantities fell in almost all districts during the week, but the fall in most parts of the province was very slight. More rain is very urgently wanted in several places for the transplanted rice crop, especially on the high lands. Early crops have been almost all gathered in generally with a fair outturn though in some districts these crops especially jute have not been under average. Fever is prevalent in some districts; otherwise public health is still pretty fair.

Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.	
<b>N. W. Provinces and Oudh—</b>			
Benares (Oct. 2nd)	No rain	Anxiety beginning to be felt for want of rain. Fever continues. Prices steady. Condition of cattle good.	
Allahabad ( " 3rd)	.....	Rainy season over and autumnal commenced. Crops doing fairly well. Early rice being harvested. Cholera cases still. Slight autumnal fever. Prices easy.	
Gorakhpur (Sept. 30th)	.....	Weather bright and clear during the week. Crops flourishing, but more rain required to secure a full rice crop and for the <i>rabi</i> sowings. Prospects excellent. Prices steady with a tendency to fall. Cholera has disappeared from the jail, but is spreading in the city.	
Jhansi (Oct. 1st)	No rain	Prospects good. More rain would be an advantage. <i>Dajri</i> , <i>teli</i> , and cotton are in flower. Prices stationary. Health of people and cattle good.	
Agra ( " 2nd)	No rain	Fever in four parganas. Prices stationary. Rain needed both for present crops and <i>rabi</i> sowings, none having fallen for more than two weeks.	
Bareilly ( " " )	.....	<i>Rabi</i> sowings begun. Rain badly wanted. Cholera almost gone.	
Meerut ( " " )	No rain	General condition favourable. <i>Rabi</i> ploughings in progress and gram being sown. Prices steady.	
Kumaun ( " " )	No rain	Weather seasonable. Reaping of <i>kharif</i> in progress. Oatcorn-fair. Ploughing for <i>rabi</i> commenced. Prices stationary. Cattle-disease prevalent. Health good.	
Lucknow ( " " )	No rain	Weather clear. Rice is being cut and threshed. <i>Uheat</i> crops excellent. Condition of people good and of cattle normal. Markets well supplied. Prices steady.	
Faribgarh ( " " )	No rain	Prices almost stationary. <i>Khuri dhan</i> being cut. <i>Jorjan</i> suffering from drought in parts of tahsil Patti. Slight fever reported in Kundu and cattle-disease in Satr.	
Sitapur ( " " )	No rain	General health good. Gram sowings commenced, but west wind drying soil too quickly. Prices on the whole falling.	
Fyzabad ( " " )	No rain	<i>Kharif</i> crops are being cut. Prospects good. Public health good.	
Rab Bareli ( " 1st)	No rain	Weather bright. Wind westerly. More rain wanted. Health of men and condition of cattle good. Supplies abundant. Prices steady.	
Cawnpore ( " 2nd)	No rain	Sky almost cloudless. Rain needed for <i>rabi</i> sowings. <i>Juari</i> before will be about 12 annas. Rice almost entirely failed, but not one of the staple crops. Cholera is reported from one police station only and fever is prevalent. Cattle disease in parganas Akbarpur, Barla, and Salempur. Prices slightly fallen.	
Farukhabad ( " " )	.....	Bright clear weather in early part of week, now very slightly overcast and warmer. Fever is prevalent in the parts which had the heaviest rainfall and where there is new canal irrigation.	
<i>General Remarks.</i> —No rain has fallen during the week and the rainy season appears to be over. More rain would be an advantage in many districts, but prospects are on the whole fair. Cholera has disappeared from Allahabad and almost disappeared from Bareilly; it is reported from one police station in Cawnpore, and is spreading in Gorakhpur city. Season fever is reported from several districts.			
<b>Punjab—(Oct. 2nd)</b>			
Delhi	.....	Health good. Prices of barley and <i>juari</i> slightly risen. Prices of other food-grains stationary.	
Hissar	.....	Health good. Rain required in Rohtak and Jhajjar. Crops elsewhere in good condition. Prices stationary.	
Umballa	.....	Health good. <i>Kharif</i> yield expected to be below the average. <i>Rabi</i> sowings delayed for want of rain. Prices stationary.	
Jullundur	.....	Health and <i>kharif</i> prospects good. Prices falling.	
Amritsar	.....	Health and condition of crops good. Prices falling.	
Sialkot	.....	Health and harvest prospects good. Prices stationary.	
Ferozepore	.....	Health and <i>kharif</i> prospects good. Prices falling.	
Lahore	.....	Health and <i>kharif</i> prospects good. <i>Rabi</i> ploughings continue. Prices falling.	
Rawal Pindi	40	Fever in two tahsils. <i>Kharif</i> prospects good in four tahsils and average in four others. Prices rising.	
Multan	.....	Health and <i>kharif</i> prospects good. Prices stationary.	
Dera Ismail Khan	70	<i>Kharif</i> crops in <i>daman</i> and <i>thall</i> lands average; in irrigated lands fair. <i>Rabi</i> ploughings commenced. Prices slightly rising.	
Peshawar	10	Rain much more wanted. Slight fever prevalent. Prices falling.	
<i>General Remark.</i> —Slight rain has fallen in the Rawal Pindi, Dera Ismail Khan, and Peshawar districts. Seasonal fever in Rawal Pindi and Peshawar; health elsewhere good. The crop prospects are generally good, and the prices of food-grains are either falling or stationary.			
<b>Central Provinces—(Oct. 3rd)</b>			
Gorakhpur	117	Weather cloudy. Clear weather needed for crops. Cholera abating. Prices of wheat and <i>juari</i> slightly fallen.	

Presidency or Province and District	Rainfall for week under report	State of agricultural prospects.
<b>Central Provinces - contd.</b>		
Jubbulpore	... .	Weather clear with bright sunshines. Crops in fair condition. Cotton in flower and thriving. Rain wanted. Price stationary. Health good.
Baugar (Oct 2nd)	17	Rain not general. Weather hot. Prospects favourable. A few showers would be beneficial to crops and to <i>zabs</i> ploughings. Prices stationary. Health fair.
Sonai	..	Weather cloudy and unusually hot. Sowing commenced. Fever prevalent. Wheat 22/- and rice 16/- per acre.
Hoshangabad	... Occasional showers	Weather hot and cloudy. Prospects good. Land ready for sabi sowings. Health good. Wheat 17/- and rice 9/- per acre.
Khandwa	20	Weather occasionally cloudy. Seventeen deaths from cholera. Prices stationary.
Barpur	38	Crops thriving but more rain needed. Grasshoppers numerous and destructive to rice in Sonarpur, Chiraram Rupura and a few villages in Drong.
Sambalpur (Sept 29th)	391	Weather very favourable. Prospects in north and west improving. Fever increasing. Cumin 10/- and 12/- per acre.
<b>General Remarks</b> - Rain has continued in the south and east of the provinces and the prospects of the rice crop are improving. Clear weather is needed in Nasapur and Wardha for the <i>zabs</i> and to allow of the proper preparation of the ground for the rabi sowings in the north of the provinces. There has been little or no rain and some moderate falls would be beneficial.		
<b>British Burma - (Sept 29th)</b>		
Akyab	3.28	Rainfall to date 171.69. One death from cholera in town, otherwise public health good. 114 deaths of cattle in Maitang and Mindya, elsewhere health of cattle good. Transplanting season over. General appearance of crops - oil. Season favourable.
Rangoon	2.31	Rainfall to date 73.33. One death from small pox, otherwise public health good. Price of paddy from Rs. 7/- to 8/- per 100 baskets.
Bassein	1.72	Rainfall to date 82.11. Public health good. Slight cattle disease in Betaythina and Yegyi townships, 63 deaths in Kyaukpon township. Paddy plants in good condition. Price of paddy Rs. 80 to 100 per 100 baskets.
Ambaw (Moulmein)	2.25	Rainfall to date 162.21. Public health good. 91 deaths of cattle reported from Hlunghwe township. Crops healthy in Moulmein town. Public health good. Progress and general appearance of crops good. No damage from drought, flood, or insects. Health of cattle good.
Toungoo	1.64	Rainfall to date 73.61. Public health and health of cattle good. Transplanting progressing. Price of paddy Rs. 65 per 100 baskets.
Kyaukphyoo (Sept 22nd)	0.88	Rainfall to date 152.65. The following deaths from cholera are reported - Kyaukphyoo township, Thidudong circle 2, Kinnigau 6, Bimote township, Myoma circle 8, Thinlegone 4, Hmawyouk 1, Ponleagon 1, Cludaby township, Muibin circle 2 and Dabynchaung circle 1. Health of cattle good. Crops progressing favourably.
Sandoway ( " " )	1.62	Rainfall to date 195.87. Public health good. Crops continue healthy.
Hanthawaddy	... .	Public health and health of cattle good. Three-fourths of land has been ploughed in Hlunghwe township, ploughing has been completed in Hlunghwe and Timaukong townships. Some of the crops in the Amgaikone, Bawh and Myoingau circles, Hlunghwe township, have been destroyed by floods. Wages of ploughing 10/- to 60 baskets of paddy per man in Hlunghwe township. Price of paddy from Rs. 80 to 100 per 100 baskets.
Moga	3.28	Rainfall to date 111.61. Four deaths from fever in Pyay, otherwise public health good. Slight cattle disease in Kalawbaw creek and Syriem township. 2 deaths returned from latter. Prospects of crops good although not sown. Price of paddy Rs. 80 to 85 per 100 baskets.
Tharrawaddy	2.40	Rainfall to date 89.67. Public health good. Fifteen deaths of cattle in Maubin and Epan townships. Health of cattle in all other townships except Goyobungon where slight cattle disease prevalent, good. Ploughing, sowing and transplanting progressing. Transplanting and sowing nearly completed. Crops healthy. Price of paddy Rs. 90 to 125 per 100 baskets.
Prome	1.28	Total rainfall to date 10.84. Public health and health of cattle good. Mdinthaung, however, reports 6 deaths of cattle. Ploughing and planting progressing. More rain wanted in some places, but no loss owing to drought has been reported. Standing crops are in good condition. Price of paddy Rs. 90 per 100 baskets.
Thonegwa	4.27	Total rainfall to date 75.39. Public health and health of cattle good. 3,500 acres destroyed by flood in Thagan creek, Donalvo township. Increase of cultivation in other parts of the township owing to protection offered by embankments. Area of crops destroyed in Shwaylong township not yet ascertained. Inquiries are being made. Slight damage to low lying crops in Pantanow township. Crops in Paapon and Didiye townships good. Price of paddy Rs. 90 to 95 per 100 baskets. Seedlings for transplanting insufficient in Shwaylong township. Transplanting progressing. Damaged areas of Thonegwa and Yandeon townships.

Presidency or Province and District.	Rainfall for week under report	State of agricultural prospects.
<b>British Burma—contd.</b>		
Henzada	0.62	Rainfall to date 76.72. Two deaths from small pox in Henzada township. Public health good. Plants in good condition in Henzada sub division. Information from Myamung not received.
Thayetmyo	0.90	Rainfall to date 29.47. Public health good. Forty three deaths of cattle in Myatkyine. Rice crop still suffers seriously for want of rain.
Shwaygyin	2.33	Rainfall to date 130.62. Public health fair. Fifty two deaths of cattle reported from Men and Kyimintaw enclaves. Transplanting and sowing nearly finished. General appearance of crops good. Crops suffer from floods in Leykyin and, but on the whole a fair increase in total cultivation may be expected. Price of paddy Rs. 7/- per 100 bushels.
Tavoy	2.40	Rainfall to date 181.80. Public health and health of cattle good. General appearance of crops good.
Mergui	...	No report received.
<i>General Remarks.</i> Rainfall for the week considerably less than the corresponding week last year, especially on the coast and in the interior of the Irrawaddy division. Total rainfall up to date still deficient compared with last year notably in Rangoon and the Tenasserim coast districts. Public health fair. No mortality of cattle here, with the exception of parts of Thyatha in which the crops are still suffering from want of rain and in parts of Thongwa, where there have been destructive floods. The agricultural condition of the Province is satisfactory, and prospects good. Price of paddy keeps up.		
<b>Assam—(Oct. 3rd)</b>		
Gauhati	1.79	Weather seasonable. Mornings and nights cool. Prospects of <i>sati</i> crops good. Public health fair. Cattle disease still reported from the interior.
Sylhet	1.33	Still bad prospects of crops good. Public health fair good.
Cachar	2.00	Weather warm. Prospects of <i>sati</i> crops good. Ripping of <i>mow</i> crops continues. Common cholera 10/- seers per rupee. Four deaths from small pox reported from Sub.
Dibrugarh	3.10	Weather seasonable. Prospects of crops good. Public health good.
<b>Mysore and Coorg—(Oct. 3rd)</b>		
Bangalore	3.8	Dry crops withering for want of rain. Prospects critical for dry crops. Wet crops in good condition. Public health good.
Mysore	No rain	Dry crops withering. Prospects of season doubtful. Agricultural operations partly suspended.
Mercuria	5.5	Coffee crops ripening fast. Picking of cardamoms proceeding. Outstanding good. Rice crops doing well. Harvest commenced. Outturn under the average. Prices of food grains continue to fall. Public health generally good.
<i>General Remarks.</i> Dry crop withering in all districts from want of rain. General health good. Prices stationary. Murrain prevalent in the Kudur district.		
<b>Bihar &amp; Hyderabad—(Oct. 3rd)</b>		
Aurangzi	2.23	Continuous rainfall has done some injury to cotton and millet crops. The break now in the weather, if it continues, will improve the crops. Wheat in and <i>jauar</i> 20/- is per rupee.
Akola	2.17	Crops in good condition. Generally long stalks now wanted.
Hyderabad	Average rainfall 2.10	Total from 1st to 30th 28.18. Standing crops flourishing. Ripping of <i>khari</i> crops continuing. Cholera prevalent in the Gadhia and fever and ague in another. Prices—wheat 4/-, maize 10/-, white <i>jauar</i> 2/-, yellow <i>jauar</i> 20/-, millet 2/- 1/- 2/- seeds per current measure.
<b>Central India States—(Oct. 3rd)</b>		
Indore	1.97	Prices slightly falling.
Marwar (Gwalior)	Nil	Fever in Indore. Prospects good.
Sutna	0.92	Prospects good.
Butlam	...	No report received.
Neemuch	0.41	Ripping of <i>khukha</i> completed. Land being prepared for <i>rabi</i> . Agricultural prospects very fair. Public health good.
Gonda	0.25	Wheat 2/- 1/- 12 chaffakes per rupee. Health and crops good.
Bhopal	...	No report received.
Agar	Nil	Crops and public health good.
Sehore	...	Weather clear. Crops and public health good.
Newgong	Nil	<i>Khari</i> prospects fair. Prices steady. Health good.
Manpur (Bhopawar)	2.20	Prospects good. Late showers have helped to fill the tanks. Slight cholera reported at Barwani.
<b>Rajputana—</b>		
Abu (Oct. 3rd)	1.72	Weather occasionally hazy and cloudy with thunderstorms and showers, otherwise clear and sunny. Tanks and wells full. Health and crop prospects very fair. Weather warm.
Mroli (Sept. 30th)	33: two or three heavy showers.	

Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.
<b>Rajputana—contd.</b>		
Marwar (n. 28th)	No rain	Few months' water in Jodhpore city. Tanks and wells filling up. Health and crops good. Sky daily clear and cloudless. Weather close and sultry. Prospects fair. Prices stationary.
Maywar (n. 29th)	13	Tanks and wells full. Health good. Crops fairly good. <i>Rabi</i> sowings commenced.
Harotika (n. n.)	Not	<i>Rabi</i> operations continue, but rain needed. Weather cloudy, heat great. Health good. Prices stationary. Smallpox among cattle in Kherar district.
Shallawar (n. 28th)		Weather seasonable. Health and prospects good.
Ajmer (Oct. 2nd)		<i>Kharif</i> being harvested. <i>Rabi</i> cultivation going on. Thunderstorms with slight rain on first.
Jaypore (n. n.)	Slight rain	Weather cloudy. More rain wanted for <i>rabi</i> . Prices steady. Fever prevalent.
Bhurtpur Ulwur (Oct. 2nd)	No rain	No report received. Prices steady. Health good.

**ABSTRACT SHOWING THE RESULT OF EMIGRATION FROM THE PORT OF CALCUTTA DURING THE MONTH OF JUNE 1883.**

No. I.—As to age and sex.

	NATAL.			Fiji.			TOTAL.			Grand Total.
	Males	Females	Total	Wives	Females	Total	Males	Females		
	Proportion of women to men			Proportion of women to men			Proportion of women to men			
Under 2 years	10	8	18	9	7	16	10	15	34	
From 2 to 10 years	24	19	43	11	9	20	15	28	43	
" 10 " 20 "	73	27	100	106	31	137	179	61	240	
" 20 " 30 "	102	59	221	217	87	304	379	146	525	
" 30 " 40 "	21	10	31	10	17	27	28	20	48	
" 40 " 60 "	2	3	5	2	2	4	4	3	7	
Above 60	...	...	...	...	...	...	...	...	...	
GRAND TOTAL	292	126	418	352	117	469	641	273	917	

No. II.—As to places whence emigrants come to Calcutta for embarkation.

	NATAL.			FIJI.			TOTAL.			
	Males	Females	Total	Wives	Females	Total	Males	Females		
Orissa	1	1	2	1	1	2	2	1	3	
Western Bengal	1	1	2	1	1	2	1	1	2	
Central India	...	...	...	...	...	...	...	...	...	
Eastern India	...	...	...	...	...	...	...	...	...	
Bohar	61	12	76	9	6	15	73	18	91	
North-Western Provinces	105	50	155	187	86	273	202	136	438	
Oudh	42	8	50	98	45	143	140	53	193	
Central India	6	6	12	13	1	14	19	7	26	
Punjab	8	8	16	36	7	43	44	12	56	
Nepal	6	1	7	7	1	8	10	1	20	
Mixed, Madras & Bombay, &c.	59	40	108	1	...	1	60	19	100	
GRAND TOTAL	292	126	418	352	147	469	641	273	917	

## No. III.—As to caste and religion.

			NATAL.			FIJI.			TOTAL.		
			Males	Females	Total	Males	Females	Total	Males	Females	Total
Brahmins, high caste	...	...	35	17	52	108	39	147	133	60	193
Agriculturist	...	...	77	13	90	98	31	129	163	44	209
Artisans	...	...	13	5	18	10	10	20	23	15	38
Low castes	...	...	147	81	228	100	40	140	247	121	368
Muslims	...	...	20	10	30	46	27	73	66	37	103
Christians	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL	...	...	292	126	418	352	147	499	644	273	917

*Memo.*

	Male.	Female.	Total.
1. Hindus	578	236	814
2. Muslims	66	37	103
3. Christians	...	...	...
TOTAL	644	273	917

E. C. BUCK,  
Secy. to the Govt. of India.

GOVERNMENT OF INDIA.

## LEGISLATIVE DEPARTMENT.

ABSTRACT OF THE PROCEEDINGS OF THE COUNCIL OF THE GOVERNOR  
GENERAL OF INDIA, ASSEMBLED FOR THE PURPOSE OF MAKING  
LAWS AND REGULATIONS UNDER THE PROVISIONS OF THE  
ACT OF PARLIAMENT 24 & 25 VIC. CAP. 67.

The Council met at Government House, Simla, on Thursday, the 4th October, 1883.

## PRESENT:

His Excellency the Viceroy and Governor General of India, K.G., G.M.S.I.,  
G.M.I.E., presiding.  
His Excellency the Commander-in-Chief, C.C.B., C.I.E.  
Lieutenant-General the Hon'ble T. F. Wilson, C.B., C.I.E.  
The Hon'ble C. P. Ilbert, C.I.E.  
The Hon'ble Sir S. C. Bayley, K.C.S.I., C.I.E.  
The Hon'ble T. C. Hope, C.S.I., C.I.E.  
The Hon'ble Rájú Siva Prásad.  
The Hon'ble W. W. Hunter, LL.D., C.I.E.  
The Hon'ble J. W. Quinton.  
The Hon'ble D. G. Barkley.

## PROTECTION OF INVENTIONS BILL.

The Hon'ble Mr. ILBERT moved that the Report of the Select Committee on the Bill for the protection of inventions exhibited in the Exhibitions of India be taken into consideration. He stated that the Bill appeared to have been

generally accepted as useful and sufficient, and the only alterations made by the Committee were alterations of a verbal nature.

The Motion was put and agreed to.

The Hon'ble Mr. ILBERT also moved that the Bill as amended be passed.

#### NATIVE PASSENGER SHIPS ACT, 1876, AMENDMENT BILL.

The Hon'ble Mr. ILBERT also moved that the Report of the Select Committee on the Bill to amend the Native Passenger Ships Act, 1876, be taken into consideration. He said :—

"The object of this Bill is to give effect to certain international arrangements with respect to the pilgrim-traffic in the Red Sea. On looking into the matter, it was found that most of what was required could be effected by means of alterations in the rules made under our Native Passenger Ships Act, but that it would also be necessary to make one or two amendments in the Act itself, and it was for this purpose, and this purpose only, that the present Bill was prepared.

"The local officers have directed attention to various points, other than those covered by the amending Bill, in which it appears to them that the Passengers Act is defective. We admit the existence of some of these defects, and the question as to the best mode of remedying them is at this moment under the consideration of the Home Department, and will shortly be brought under the consideration of the Legislative Department. But in the meantime, as the present Bill is urgently required, we think it desirable not to postpone its passing until the more general amending measure can be prepared and passed. I mention this in order that it may not be supposed that some of the very useful suggestions which we have received have been overlooked. Some of the criticisms which have been passed on the Bill seem to be based on an imperfect apprehension of the limited scope of the Act which we propose to amend. For instance, it has been suggested by some that the provisions of the Bill may interfere in an inconvenient manner with the traffic of cargo-ships trading to the Red Sea, and by others that we ought to obtain a more extensive control over all passenger-ships trading to or from ports in the Red Sea to British India or elsewhere. But if you look at section 2 of the Passengers Act, you will find that the scope and operation of the Act are restricted within very narrow limits. The Act extends to the whole of British India, and applies—

"to all subjects of Her Majesty within the dominions of Princes and States in India in alliance with Her Majesty;

"to all Native Indian subjects of Her Majesty without and beyond British India; and

"subject to the exceptions mentioned in section 2, to vessels carrying more than thirty passengers, being Natives of Asia or Africa."

"But the section expressly provides that nothing in the Act is to apply—

"to any ship of war or transport belonging to, or in the service of, Her Majesty;

"to any ship of war belonging to any Foreign Prince or State;

"to any sailing vessel not carrying as passengers more than thirty Natives of Asia or Africa;

"to any steamer not carrying as passengers more than sixty of such Natives; or

"to any sailing vessel or steamer not intended to convey passengers to or from any port in British India.

"The Act does not apply to mere cargo-ships; it does not apply to ships carrying passengers, other than Native passengers as defined by the Act; it does not apply even to those ships unless they carry a minimum number of such passengers, nor unless those passengers happen to be bound either to or from some port in British India. Thus, the Act would not apply to a ship carrying Native passengers from Jeddah to Ceylon, or vice versa, even though

the ship happened to touch at Aden on its way. Again, the section to which I have referred is so framed as to exclude from the operation of the Act those ships over which we have no jurisdiction, and over which our Indian legislature, with its limited powers, cannot give us jurisdiction. We have done our best to meet the difficulty arising from want of jurisdiction in such cases by requiring the owner, agent or master of every ship carrying Native passengers, and proceeding, from a port in British India to the Red Sea, to execute a bond which is conditioned for the observance of the requirements of the Act both on the outward and on the homeward voyage, and which can be enforced in Indian Courts. We are only concerned with the pilgrim-traffic to and from British India, and I have been informed—though I cannot vouch for the accuracy of the information—that almost all the ships engaged in this traffic start from British Indian ports and sail under the British flag. If that is the case, I do not apprehend that there will be any practical difficulty in enforcing the provisions of the Act. But whether it is so or not, we cannot exceed the powers of our legislature, and if it should appear desirable to obtain more extensive control over foreign ships or over British ships when outside British Indian waters, we must seek the assistance of the British legislature, acting if necessary in concert with the Governments of foreign States. A precedent for legislation of the kind required will be found in the Imperial Merchant Shipping Act of 1876 (39 and 40 Vict., c. 89, s. 37).

"Under these circumstances, we have not thought it necessary to make more than two substantive alterations in the Bill as introduced. The first of the alterations which we have made relates to the power to be conferred on the Government to require an assurance as to the state of health of the passengers before embarkation. The Bill as introduced empowered the Government to require passengers to produce a medical certificate, but it has been pointed out that, while the obtaining of such certificates might in many cases involve considerable trouble and delay to those concerned, the certificate would not always afford a guarantee that the holder of it was not at the moment of embarkation free from disease. We have accordingly substituted for the power to require certificates a power to subject passengers to a medical inspection before embarkation, and to prevent the embarkation of any person who may appear to be suffering from any dangerously infectious or contagious disease.

"The other alteration which we have made consists in the addition to the Bill of a section empowering the Local Government, with the previous sanction of the Governor General in Council, to exempt for sufficient reason any class of ships from any provision of the Act. This section has been inserted at the suggestion of the Bombay authorities, who represent that under exceptional circumstances, some of the provisions of the Act as now amended might operate inconveniently; for instance, if at a time when steamers were being taken up for a military expedition and only sailing vessels could be procured for Native passenger-traffic, we were to insist rigidly on the condition as to a Native passenger-ship bound for the Red Sea being propelled principally by steam.

The Motion was put and agreed to.

The Hon'ble Mr. ILBERT also moved that the Bill as amended be passed.

The Motion was put and agreed to.

#### LEGAL PRACTITIONERS BILL.

The Hon'ble Mr. ILBERT introduced the Bill to amend the Legal Practitioners Act, 1870, and the Indian Stamp Act, 1870, and moved that it be referred to a Select Committee consisting of the Hon'ble Sir Steuart Bayley, the Hon'ble Mr. Quinton and the Mover.

The Motion was put and agreed to.

The Hon'ble Mr. ILBERT also moved that the Bill and Statement of Objects and Reasons be published in the local official Gazettes in English and in such other languages as the Local Governments might think fit.

The Motion was put and agreed to.

CATTLE-TRESPASS ACT, 1871, AMENDMENT BILL.

The Hon'ble Mr. ILBERT also presented the Report of the Select Committee on the Bill to amend the Cattle-trespass Act, 1871.

PANJAB LOCAL SELF-GOVERNMENT BILL.

The Hon'ble Mr. BARKLEY presented the Report of the Select Committee on the Bill to make better provision for Local Self-government in the Panjab.

INDIAN PORTS ACT, 1875, AMENDMENT BILL.

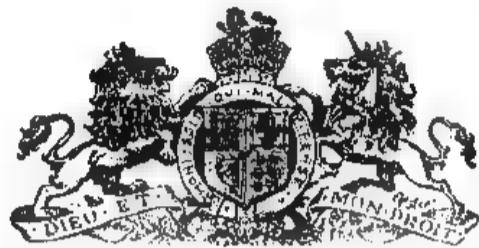
The Hon'ble Mr. ILBERT moved for leave to introduce a Bill to amend the Indian Ports Act, 1875. He explained that this was a small Bill which had been prepared at the suggestion of the Financial Department, and that its object was to amend section 47 of the Indian Ports Act, 1875, in such a way as to make it clear that the pensions of port-officers might be charged against the port-account.

The Motion was put and agreed to.

The Council adjourned to Wednesday, the 10th October, 1883.

D. FITZPATRICK,

SIMLA; } *Secretary to the Government of India,*  
*The 5th October, 1883.* } *Legislative Department.*



# SUPPLEMENT TO The Gazette of India.

N<sup>o</sup> 41.} CALCUTTA, SATURDAY, OCTOBER 13, 1883.

## OFFICIAL PAPERS.

A SUPPLEMENT to the GAZETTE OF INDIA will be published from time to time, containing such official Papers and information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on a payment of six Rupees per annum if delivered in Calcutta, or nine Rupees if sent by Post.

No official Orders or Notifications, the publication of which in the GAZETTE OF INDIA is required by Law, or which it has been customary to publish in the CALCUTTA GAZETTE, will be included in the SUPPLEMENT. For such Orders and Notifications the body of the GAZETTE must be looked to.

GOVERNMENT OF INDIA.

DEPARTMENT OF FINANCE AND COMMERCE.

SUPPLEMENT TO THE STATEMENT OF PRICES CURRENT OF FOOD-GRAINS FOR THE 2nd HALF OF JUNE 1883, PUBLISHED IN PAGES 1360 AND 1361 OF THE SUPPLEMENT TO THE "GAZETTE OF INDIA," DATED 29th JUNE 1883.

PROVINCES.	DISTRICTS.	AVERAGE WAGES PER MONTH.		
		Able-bodied Agricultural Labourer.	Serge or Horse-keeper.	Common Mason, Carpenter, or Blacksmith.
BOMBAY	Naemach Aden	R. a. p. 7 8 0 ...	R. a. p. 7 0 0 10 0 0	R. a. p. 6.0 to 15.0 30.0 to 37.8

D. BARBOUL,  
*Secretary to the Government of India.*

DEPARTMENT OF FINANCE AND COMMERCE,  
*(Statistical Branch).*

GOVERNMENT  
DEPARTMENT OF FIN.

**PRICES CURRENT OF FOOD-GRAINS THROUGHOUT**

QUANTITIES PER KUPEE

QUANTITIES PER RUPEE																												
NAME OF DISTRICT.	Wheat.				Barley				Rice (best sort)				Rice (common)				Great Millet (Churn sovereign)				Bairam Millet (Crown sovereign)				Pennisetariae Spinosa			
	Present Fortnight.		Past Fortnight.		Corresponding fort- night of 1892.		Present Fortnight.		Past Fortnight.		Present Fortnight.		Past Fortnight.		Present Fortnight.		Past Fortnight.		Present Fortnight.		Past Fortnight.		Present Fortnight.		Past Fortnight.			
	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.		
Gonjum . . . .	8 13	9 10	8 2	..	..	..	..	..	17	0 17	0 17	13 17	17 14	17 14	17 14	19 8	..	..	..	..	..	..	..	..	..	..		
Vengapatnam . . . .	9 8	10 0	10 0	..	..	..	..	..	9 0	9 8	9 8	0	11 5	11 14	11 14	11 14	5 24	13 23	13 23	..	23	13 23	13 23	13 23	13 23	13 23		
Gudavayi . . . .	9 14	10 13	12 10	..	..	..	..	..	12 14	10 14	13 14	13 14	15 0	14 0	15 0	14 0	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23		
Kittur . . . .	8 13	8 13	12 11	..	..	..	..	..	14 0	14 0	15 11	14 11	14 11	14 11	14 11	14 11	5 20	13 20	13 20	13 20	13 20	13 20	13 20	13 20	13 20	13 20		
Nellore . . . .	10 13	10 13	12 10	..	..	..	..	..	13 14	13 14	15 13	15 13	15 0	15 0	15 0	15 0	0 21	10 21	10 21	10 21	10 21	10 21	10 21	10 21	10 21	10 21		
Cuddapah . . . .	13 16	12 14	14 0	..	..	..	..	..	12 6	12 6	6 12	6 12	6 5	6 14	6 5	6 14	2 21	10 20	10 20	10 20	10 20	10 20	10 20	10 20	10 20	10 20		
Anantapur . . . .	13 6	13 6	13 6	..	..	..	..	..	12 18	11 18	12 18	12 18	14 0	12 5	14 0	12 5	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23		
Bellary . . . .	17 5	17 6	16 5	..	..	..	..	..	11 13	11 13	12 5	12 5	12 8	12 8	12 8	12 8	8 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23	5 23		
Kurnool . . . .	12 2	12 2	12 2	..	..	..	..	..	10 10	10 10	10 10	10 10	11 6	11 6	11 6	11 6	3 23	3 23	3 23	3 23	3 23	3 23	3 23	3 23	3 23	3 23		
Madras . . . .	11 0	11 5	10 8	..	..	..	..	..	13 6	13 8	13 10	13 10	15 5	15 5	15 5	15 5	2 22	5 22	5 22	5 22	5 22	5 22	5 22	5 22	5 22	5 22		
Chingleput . . . .	..	..	..	..	..	..	..	..	13 8	13 8	14 10	14 10	15 2	15 2	15 2	15 2	14 14	..	..	..	..	..	..	..	..	..		
North Arcot . . . .	9 11	9 11	9 11	..	..	..	..	..	13 8	13 8	16 0	16 0	16 14	16 14	16 14	16 14	17 41	..	33	11 31	5 31	5 28	14	..	..			
South Arcot . . . .	9 6	9 6	9 0	..	..	..	..	..	14 13	13 11	15 11	15 11	15 11	14 16	15 11	14 16	3 33	10 30	0 28	9 28	14	..	..	..	..			
Tanjore . . . .	11 0	11 13	9 8	..	..	..	..	..	17 13	17 13	15 18	15 18	..	..	..	..	..	31	13 33	6 31	14 40	10 42	0 31	14	..	..		
Trichinopoly . . . .	9 3	9 10	9 3	..	..	..	..	..	15 2	15 14	14 6	15 14	16 11	14 16	16 11	14 16	30 30	13 30	10 28	0 27	14 30	8 26	11	..	..			
Muvva . . . .	12 8	12 8	11 5	..	..	..	..	..	14 5	15 8	13 14	14 18	16 0	15 3	16 0	15 3	8 27	5 28	11 33	6 23	6 30	13	..	..	..	..		
Thiruvelly . . . .	10 10	10 10	8 0	..	..	..	..	..	16 5	16 5	15 6	15 6	16 13	16 13	16 13	15 13	..	..	..	..	..	..	..	..	..	..		
Uttambattom . . . .	18 2	18 2	10 11	..	..	..	..	..	14 6	14 6	6 18	6 18	13 0	12 0	12 0	10 0	6 20	0 20	0 20	0 21	0 21	0 19	10	..	..			
Nilgiri . . . .	10 10	10 10	7 2	..	..	..	..	..	11 3	11 3	9 10	12 0	12 0	12 0	10 0	6 20	0 20	0 20	0 21	0 21	0 19	10	..	..	..	..		
Palani . . . .	12 11	12 11	10 8	..	..	..	..	..	14 0	14 10	18 2	14 11	15 0	14 1	15 0	14 1	3 22	13 22	13 22	8 29	8 29	8 29	8 29	8 29	8 29	8 29	8 29	
South Cannara . . . .	7 8	7 11	8 10	..	..	..	..	..	9 11	9 11	9 11	13 8	12 3	12 3	10 11	0	..	..	..	..	..	..	..	..	..	..	..	
Malabar . . . .	8 10	8 10	7 3	..	..	..	..	..	15 6	15 6	14 10	16 10	16 3	16 9	16 3	15 9	..	..	..	..	..	..	..	..	..	..	..	
Bombay . . . .	10 0	10 0	10 0	18 10	16 5	..	2	7 8	7 8	5 5	8 14	12 6	11 3	11 3	11 3	6 18	11 17	14 19	2 14	14 15	16 17	7	..	..	..	..	..	
Ahmedabad . . . .	12 0	12 0	14 8	19 6	19 0	..	..	6 8	6 8	7 8	7 8	12 0	0 8	0 8	0 8	0 8	14 0 14	8 17	8 18	0 18	8 18	0 18	8 18	0 18	8 18	0 18	8 18	
Erode . . . .	10 10	10 10	11 11	13 20	0	20 0	20 0	20 0	9 11	9 11	10 0	13 0	13 0	13 0	13 0	0 18	0 18	5 13	5 17	12 13	12 13	12 13	12 13	12 13	12 13	12 13	12 13	12 13
Burari . . . .	11 4	11 4	12 8	12 4	12 4	..	..	7 11	7 6	7 6	7 6	8 3	8 5	8 5	8 5	8 12	19 4 19	3 13	9 11	0 14	0 14	14	..	..	..	..	..	
Bronch . . . .	12 4	12 4	12 4	13 5	5	..	..	..	9 16	9 16	11 1	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12	12 12	
Tamna (Satellite) . . . .	10 5	9 12	10 5	12 14	..	..	..	..	9 9	9 7	8 3	10 10	10 10	10 10	10 10	10 10	17 11 16	14 20	6 15	8 14	4 19	18	..	..	..	..	..	
Colaba (Alibag) . . . .	8 8	8 8	8 8	8 8	8 8	..	..	..	7 8	7 8	7 8	12	12 0	12 0	12 0	12 0	15 8 15	6 31	11 17	12 17	2 25	0	..	..	..	..	..	
Khandesh (Bhusha) . . . .	14 14	14 0	16 0	..	..	..	..	..	7 9	7 9	7 9	7 4	10 13	10 13	10 13	10 13	17 11 16	14 20	6 15	8 14	4 19	18	..	..	..	..	..	
Nasik . . . .	14 4	14 4	14 4	4	4	..	..	..	7 7	7 7	7 7	7 7	7 7	7 7	7 7	7 7	15 5 17	6 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	
Almoraempur . . . .	13 4	13 4	14 6	..	..	..	..	..	8 11	8 6	9 11	11 0	11 0	11 0	11 0	11 0	23 11 17	11 26	2 27	2 27	2 27	2 27	2 27	2 27	2 27	2 27	2 27	
Poona . . . .	12 10	12 10	12 10	9 4	9 4	9 4	..	..	9 13	9 13	9 11	10 7	11 12	12 4	11 5	12 7	27 10 33	11 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	
Khodiyar . . . .	14 8	4 10	18 18	..	..	..	..	..	10 15	11 6	10 7	11 12	12 7	12 7	12 7	12 7	12 7	27 10 33	11 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26
Kelidgi (Begnhat) . . . .	19 8	19 5	22 0	16 8	16 8	14 8	14 8	14 8	8 14	8 14	8 11	11 14	11 7	11 7	11 7	11 7	12 7	23 10 33	11 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26
Patna . . . .	18 6	18 6	12 1	1	0	..	..	..	11 6	11 6	11 6	11 6	11 6	11 6	11 6	11 6	12 6	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	
Hulguru . . . .	16 16	16 5	19 10	9 13	7	14 0	14 0	14 0	7 9	8 12	9 6	10 8	11 1	11 1	11 1	11 1	12 14	9 17	10 13	7 12	18 15	4 16	..	..	..	..	..	..
Uppa Malabar (Madura) . . . .	12 12	12 12	12 2	15 8	8	23 0	23 0	23 0	10 8	9 9	9 9	9 9	10 0	10 0	10 0	10 0	10 0	23 10 33	11 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26
Azen . . . .	7 0	7 0	8 0	6	6	..	..	..	11 6	11 6	11 6	11 6	11 6	11 6	11 6	11 6	12 6	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	0 23	
Aengarh . . . .	18 12	13 12	14 0	..	..	..	..	..	11 12	11 14	10 15	14 0	14 0	14 0	14 0	14 0	15 4 15	0 17	9 24	15 17	12 17	2 28	0	..	..	..	..	..
Baroora . . . .	9 16	9 5	10 9	9 13	7	14 0	14 0	14 0	7 9	8 12	9 6	10 8	11 1	11 1	11 1	11 1	12 14	9 17	10 13	7 12	18 15	4 16	..	..	..	..	..	..
Dina . . . .	12 12	12 12	12 2	15 8	8	23 0	23 0	23 0	10 8	9 9	9 9	9 9	10 0	10 0	10 0	10 0	10 0	23 10 33	11 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26
Numach . . . .	17 4	17 4	16 12	16 8	8 23	0	23 0	0	10 8	0	9 9	8 12	0	10 0	10 0	10 0	10 0	23 10 33	11 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26	0 26
Desambad . . . .	17 6	14 11	16 10	8 23	12 1	20 7	23 10	0	8 6	0	8 6	8 6	0	7 0	7 0	7 0	7 0	18 0 18	5 23	0 23	0 23	0 23	0 23					

- In the half-decimale rouble prices of salt are as follow — Tula 16 kopeks, Lettva 12 kopeks, and Smolensk 10-4 kopeks.

Small pieces of salt at Raigarh 1/- each, at Cotta 1/- each, at Meja, Bishnupur, and Baganpukhi 1/- each, at Latvala 1/- each, and at Kotalpur 1/- each.

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OF INDIA.

## ANCE AND COMMERCE.

**INDIA FOR THE 1st HALF OF SEPTEMBER 1883.**

IN SEERS OF NO TOLANS

or the Central retail prices of rufl. 11. 10 anna.

**PRICES CURRENT OF FOOD-GRAINS THROUGHOUT**

\* In the later trials, pairs of comparison tiles, which form a 4x4 by 3x3 score grid, were

In the interior retail prices of educational rice range from 10.50 to 11.50 pesos per kilo. In the suburban retail prices of such are as follows: -Bataan 10.50 pesos per kilo; Bulacan 10.50 pesos per kilo; Cavite 11.00 pesos per kilo; Laguna 11.00 pesos per kilo; and Pampanga 11.50 pesos per kilo.

In the sub-divisions retail prices of salt are as follow :—Kangra 12/- per sack and Kangra sub-division retail price of salt 11/- per sack.

In both the sub-districts retail prices of salt is same.

In the sub-divisions retail prices of salt are as follows:—Lathbury £1.

& Retail price of salt at Haigwaze 10/- a sard and Neetjore 12/- a sard.  
For Natives and Europeans retail price of salt 1/- a sard.

On New Year's Day, the price of half a catty was 1000 cash.

\* In the notifications relating to malt the word below :-  
\* In Bengal the retail price of malt is 19 annas.

**A Retail price of 10/- at Kursaal Theatre, and 8/- elsewhere 10 hours.**

(g) In Alipore sub-division at Eglisette retail price of salt is Rs. 9/-.

In the sub-divisional retail prices of salt are as follows :—Gondwana

In the sub-divisions retail prices of malt are as follow:—Patna & Bihar

In the sub-divisions retail prices of milk are as follow :—

**INDIA FOR THE 1st HALF OF SEPTEMBER 1883—continued.**

IN SEERS OF 80 TOLAHs.

<sup>2</sup> At the age of 16 he became a chorister at Worcester Cathedral, and then a chorister at Gloucester Cathedral.

In the interior retail price of salt ranges from 8 to 12/- per cwt.

In the interior retail prices of salt range from 8 to 12-4 seers  
In the sub-divisional retail prices of salt are as follow.—Brahmanbaria 14-18 seers, and Chandpur 13 seers

In the sub-branches retail prices of salt are as follow.—Hutus had damavand 1.5 a kora, and Bichabod 1.5 a kora.

In the sub-divisional retail prices of salt are as follow —Tajpur 11-8/-  
In the interior retail prices of salt range from 10 to 13 annas.

In the interior retail prices of salt range from 10 to 13 annas.  
In Deopus and Gopalganj sub-divisions retail prices of salt 12 annas.

fix the interior recall prices of salt range

18. In James' retail prices of sale in 1880, the following were as follows :—Biscuits, 11 pence. Middlebiscuits, 10½ pence, and Biscuits 10 pence.

In the sub-divisions local prices of salt are as follows: - Bikaner 11 annas, Bhopal 10-8 annas, and Bhopal 10 annas.

In the sub-various retail prices of salt are as follow:—Droghair 13 p.

The Xianyang initial price of salt is now standard initial price of salt 0.6666

Mr. Blundell will give us a short talk on the subject of Cinema 10 acres, and

**12** Retail price of salt at Bangalore 10 rupees, and Andhra Pradesh 10 rupees  
**13** Retail price of salt at Hyderabad 11-4 rupees, Barabazar 10 rupees.

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## PRICES CURRENT OF FOOD-GRAINS THROUGHOUT

Districts	Provinces	QUANTITIES PER RUPEE																															
		Wheat.						Barley.						Rice (best sort).						Rice (common)						Great Millet (Cholam, Jowar, Bajra, Sorghum)							
		Present fortnight.			Past fortnight.			Corresponding fort- night of 1882.			Present fortnight.			Past fortnight.			Corresponding fort- night of 1883.			Present fortnight.			Past fortnight.			Corresponding fort- night of 1882.							
		S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.				
Assam.																																	
Bilaspur.		10	0	12	0	10	5	12	13	12	13	16	0	14	8	12	13	20	0	16	13	16	0	20	10	10	12	0	10				
Cachar.		10	0	9	2	9	6	12	13	12	13	16	0	14	5	14	4	14	0	16	13	16	0	20	10	10	12	0	10				
Gauhati.		20	0	20	0	20	0	20	0	20	0	20	0	20	0	20	0	20	0	20	0	20	0	20	0	20	0	20	0	20			
Kamrup.		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Morung.		18	0	16	1	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16			
Nongong.		8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0		
Sibsagar.		8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0		
Lakshimpur.		6	10	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0		
Khola & Jaintia Hills.		6	10	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0		
Naga Hills.		6	10	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0		
Dehra Dun.		17	8	18	0	26	0	24	0	27	0	6	8	6	8	6	8	6	8	6	8	6	8	6	8	6	8	6	8	6	8		
Saharanpur.		18	13	17	8	20	7	19	5	23	10	31	3	7	8	7	8	7	8	7	8	7	8	7	8	7	8	7	8	7	8		
Bijnor.		17	10	17	10	19	12	13	0	28	11	28	11	6	9	6	9	6	9	6	9	6	9	6	9	6	9	6	9	6	9		
Moorit.		17	8	17	0	19	0	25	0	25	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Dhundadhabpur.		18	0	18	0	19	8	26	0	26	0	26	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0	6	0		
Alligarh.		17	4	17	0	18	4	23	0	22	8	24	0	6	0	7	0	6	0	12	0	12	0	12	0	12	0	12	0	12			
Kumman.		15	8	16	0	17	0	18	0	18	0	18	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10			
Unchiali.		20	0	20	0	24	0	22	0	22	0	20	0	9	0	9	0	9	0	9	0	9	0	9	0	9	0	9	0	9	0		
Bijapur.		18	14	18	4	17	7	23	4	23	2	27	0	9	9	9	4	11	4	10	11	9	8	12	6	42	8	21	6	19			
Moradabad.		20	0	19	1	19	6	28	2	27	1	27	12	9	0	9	0	9	0	12	12	12	2	25	8	26	14	26	0	15			
Budana.		20	6	18	14	18	■	30	0	27	9	23	6	6	0	6	0	9	9	9	12	12	12	2	25	8	24	1	18	2	18		
Borsali.		19	6	18	12	17	3	24	6	23	0	22	8	7	8	7	8	8	12	9	12	12	12	2	25	8	20	0	18	0	18		
Babuljahanpur.		18	6	19	4	19	0	33	0	31	0	24	12	9	12	8	12	8	12	10	0	11	8	14	0	25	0	25	0	25	0	25	
Tirai Perganumba.		20	4	23	0	21	4	20	0	20	8	24	0	7	0	7	0	7	0	11	0	13	8	16	0	25	0	25	0	25	0	25	
Bhattia.		17	8	16	8	17	6	23	0	21	0	25	0	5	8	5	8	6	8	11	8	11	8	14	0	22	0	22	0	22	0	22	
Agra.		16	8	16	8	17	4	23	0	22	8	24	0	7	0	7	4	6	13	12	8	11	8	14	0	22	0	22	0	22	0	22	
Purnabahad.		17	15	17	10	17	10	21	7	22	14	22	8	7	4	7	4	6	13	12	8	11	8	14	0	22	0	22	0	22	0	22	
Maunpan.		17	0	16	8	19	0	22	8	22	0	23	0	23	0	6	0	6	0	15	0	15	0	15	0	15	0	15	0	15	0	15	
Ritwak.		17	8	18	0	18	8	22	0	23	0	23	0	23	0	6	0	6	0	11	0	11	8	12	0	18	0	18	0	18	0	18	
Fulik.		18	8	18	0	18	0	20	0	25	4	24	8	25	0	8	0	8	0	10	0	10	0	10	0	10	0	10	0	10	0	10	
Jahan.		19	0	18	8	18	0	20	0	20	0	20	0	20	0	9	0	9	0	10	0	10	0	10	0	10	0	10	0	10	0	10	
Jhamai.		19	71	18	0	21	5	28	10	26	5	33	21	7	8	7	8	8	0	8	0	11	24	12	15	25	15	28	0	15	0	15	
Lalitpur.		20	8	20	0	21	0	21	0	21	0	21	0	21	0	9	0	9	0	10	0	10	0	10	0	10	0	10	0	10	0	10	
Uttarpore.		18	8	18	0	18	8	27	0	25	8	26	8	10	0	10	12	8	18	8	18	10	15	4	17	0	15	0	15	0	15	0	15
Petrapur.		16	10	16	10	16	10	25	4	24	8	26	12	10	12	13	8	18	10	15	4	17	0	15	0	15	0	15	0	15	0	15	
Bhonsa.		22	0	22	0	18	0	31	0	31	0	21	0	8																			

**INDIA FOR THE 1st HALF OF SEPTEMBER 1988—continued.**

IN SHEETS OF 80 TOLARS.

all yellowish foliage except that of rice.

(a) Wheat, barley, jowar, and gram falling, bajra rising.

(v) Wheat, gram and salt falling.

## PRICES CURRENT OF FOOD-GRAINS THROUGHOUT

PROVINCE	Districts	QUANTITIES PER RUPEE																											
		Wheat.						Barley.						Rice (best sort).						Great Millet (Cholam, Jowar), Horses' Gouras.									
		Present fortnight.			Past fortnight.			Corresponding fort- night of 1882.			Present fortnight.			Past fortnight.			Corresponding fort- night of 1882.			Bajrush Millet (Cantoo, Bairi), Pancillera Spikes.									
		S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.						
PUNJAB—continued.	Kangra	20	0	16	0	24	0	32	0	28	0	40	0	14	0	13	0	15	0	28	0.22	0.33	0.24	0.24	0.18	0			
	Jullundur (a)	20	0	17	0	24	12	30	0	26	0	34	0	11	0	11	8	11	0	30	0.28	0.24	0.14	0.14	0.17	0			
	Hoshiarpur (b)	20	0	17	0	25	8	34	0	28	0	36	0	14	0	14	3	16	0	30	0.28	0.24	0.14	0.14	0.17	0			
	Gurdaspur (c)	24	0	18	0	30	0	38	0	26	0	40	0	11	0	11	8	11	0	37	0.24	0.29	0.22	0.25	0.22	0			
	Amritsar (c)	21	8	19	8	26	4	30	0	29	4	41	0	11	0	12	0	14	0	32	0.83	0.27	0.20	0.33	0.21	0			
	Sialkot (a)	22	0	21	0	26	8	35	0	32	0	41	0	12	0	14	8	12	0	36	0.39	0.27	0.33	0.34	0.28	0			
	Gujrāt (d)	23	0	22	4	26	8	36	0	42	0	43	0	12	0	14	8	12	0	36	0.39	0.27	0.33	0.34	0.28	0			
	Jhelum	21	0	20	0	23	4	28	0	27	0	32	0	10	0	11	0	10	0	33	0.36	0.26	0.31	0.24	0	0			
	Kāwalpindī (e)	23	0	20	8	21	8	32	0	32	0	33	0	10	0	11	8	11	0	36	0.33	0.31	0.35	0.30	0.24	0			
	Shalpūr	26	0	22	0	20	12	41	0	36	0	32	0	15	0	16	0	18	0	34	0.34	0.22	0.34	0.34	0.21	0			
	Jhang (f)	21	4	17	8	20	0	30	0	28	8	31	0	9	4	8	0	11	0	26	11.27	0.20	0.30	0.30	0.18	0			
	Montgomery	17	0	16	0	20	0	26	0	23	0	24	0	10	0	10	0	10	0	24	0.26	0.30	0.24	0.26	0.16	0			
	Mooltan (g)	15	8	14	8	17	0	27	0	25	0	29	0	10	0	10	0	10	0	24	0.26	0.30	0.24	0.26	0.16	0			
	Muzaffarguri (h)	17	0	17	12	18	8	25	0	27	0	28	0	10	0	10	0	10	0	21	0.21	0.18	0.16	0.18	0.13	0			
	Dera Ghazi Khan	17	8	16	14	17	8	27	8	30	0	20	0	10	0	10	0	10	0	32	0.32	0.21	0.16	0.20	0.10	0			
	Dera Ismail Khan (i)	21	4	20	10	19	3	35	0	32	3	27	8	8	2	8	7	9	1	40	0.10	0.30	0.30	0.32	0.25	1			
	Bannu	39	6	29	6	30	10	41	4	42	8	42	8	8	12	10	0	15	0	35	0.30	0.37	0.30	0.30	0.25	0			
	Kohat (j)	19	10	10	13	17	8	31	14	31	11	31	14	11	8	11	8	11	8	30	10.85	15.21	10.30	19.85	11.21	10			
	Peshawar (k)	20	8	18	10	19	0	32	0	30	3	36	12	11	6	12	0	9	8	23	6.25	4.27	0.27	4.22	0.14	0			
	Hāsara	25	0	24	0	..	..	40	0	37	0	40	0	12	0	14	0	12	0	34	0.90	0	..	28	0.80	0			
CENTRAL PROVINCE.	Nāgpur	18	13	17	12	17	0	..	..	..	..	..	..	9	0	9	0	9	8	16	0	16	0	29	0.28	12.26	12		
	Bhandāra	20	0	20	0	18	4	..	..	..	..	..	..	10	0	10	0	10	8	18	0	21	4	36	0.35	0.22	8		
	Chāuda	19	0	19	0	19	0	..	..	..	..	..	..	10	0	10	0	10	0	15	0	13	0	27	0.27	0.24	0		
	Wardha	20	0	20	0	18	8	..	..	..	..	..	..	10	0	10	0	10	0	14	12	26	0.27	0.23	0	..	..	..	
	Bēlagātī	18	0	18	0	17	0	..	..	..	..	..	..	15	0	15	0	15	0	23	0	27	0	..	..	..	..	..	
	Jubbulpore	19	0	18	6	16	0	20	0	19	0	21	0	10	0	10	0	10	8	16	0	18	0	21	0.17	0.15	0		
	Saugar	20	8	22	0	18	0	..	..	..	..	..	..	8	0	8	0	8	0	11	0	9	0	23	0.21	0.17	0		
	Vānoch	26	8	25	4	22	6	..	..	..	..	..	..	10	18	10	8	14	0	12	0	11	8	15	0	15	0		
	Scoul	21	0	20	8	19	0	..	..	..	..	..	..	12	8	11	8	13	0	12	0	11	8	15	0	15	0		
	Mandla	25	0	25	0	19	0	..	..	..	..	..	..	15	0	16	0	14	0	16	0	19	0	19	0	19	0		
	Bētēlī	18	0	18	0	16	0	..	..	..	..	..	..	10	8	10	8	9	0	11	0	10	0	19	8.19	8.20	0		
	Chhindwārā	25	8	26	0	17	0	..	..	..	..	..	..	8	8	9	8	8	0	14	8	13	0	31	0.32	12.23	0		
	Hosāngālād	15	6	15	7	15	7	..	..	..	..	..	..	4	0	4	0	4	8	9	12	9	9	11	4	21	0.21	0.23	10.19
	Nārānghāpur	17	8	18	4	15	8	..	..	..	..	..	..	9	0	9	4	10	0	11	8	12	8	12	8	12	8	12	0
	Nimār	16	8	16	8	16	0	..	..	..	..	..	..	12	9	12	9	12	0	14	14	12	0	20	10.80	0.20	0.20	0.26	0
	Rāipur	21	0	20	0	27	0	..	..	..	..	..	..	17	8	17	8	26	0	31	8	40	0	39	0	34	0	39	0
	Simulhpur	16	8	17	0	22	12	..	..	..	..	..	..	29	6	31	8	35	0	35	0	44	0	39	0	34	0	39	0
	Bilaspur	36	0	25	0	46	0	..	..	..	..	..	..	92	4	28	0	54	0	44	0	39	0	34	0	39	0	34	0
HILL TRIBES AND SHEEP BREEDING DISTRICTS.	Arakan Division.		..	..	..	..	..	..	..	..	..	..	..	7	0	7	8	14	0	9	0	10	0	16	0	..	..	..	
	Akyab	6	6	6	6	6	6	..	..																				

**INDIA FOR THE 1st HALF OF SEPTEMBER 1863—continued.**

**TWENTY SHEKELS OF 60 TOLAHs.**

London Miles, Eng. to (Kavara, Verara, Bawra, Chenna, Coraria, Murava, Naples, Pan- nonia, Milanum, &c.)				Gram.				Firewood.				Salt.				Districts.							
Present fortnight.		Past fortnight.		Corresponding fort- night of 1882.		Present fortnight.		Past fortnight.		Corresponding fort- night of 1882.		Present fortnight.		Past fortnight.		Corresponding fort- night of 1882.		Present fortnight.		Past fortnight.		Corresponding fort- night of 1882.	
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.		
...	...	...	...	15 0 17 0 21 0	140 0	140 0	140 0	10 8	10 8	10 8	10 8	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	Kangra		
...	...	...	...	25 8 28 0 28 2	110 0	110 0	100 0	14 0	14 0	14 4	14 0	13 8	13 8	13 8	13 8	13 8	13 8	13 8	13 8	13 8	Jullundur (a)		
...	...	...	...	24 0 23 0 28 0	110 0	110 0	100 0	14 0	14 0	14 0	14 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	Hoshiarpur (b)		
...	...	...	...	25 8 31 0	120 0	120 0	120 0	13 0	13 0	13 8	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	Gurdaspur (c)		
...	...	...	...	30 8 24 4 32 4	80 0	80 0	80 0	15 6	15 6	14 12	14 12	14 12	14 12	14 12	14 12	14 12	14 12	14 12	14 12	Amarpur (c)			
...	...	...	...	28 8 25 0 25 3	120 0	120 0	120 0	15 8	15 8	14 18	14 18	14 18	14 18	14 18	14 18	14 18	14 18	14 18	14 18	Sialkot (a)			
...	...	...	...	26 0 28 4 24 3	100 0	100 0	100 0	*	*	*	*	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	Guérat (d)	
...	...	...	...	25 0 22 0 23 0	120 0	120 0	120 0	16 0	16 0	16 8	16 8	16 8	16 8	16 8	16 8	16 8	16 8	16 8	16 8	Jhelum			
...	...	...	...	29 0 24 4 23 4	88 0	88 0	86 0	15 4	15 4	14 12	14 12	14 12	14 12	14 12	14 12	14 12	14 12	14 12	14 12	Rawalpindi (e)			
...	...	...	...	0 30 0 24 5	320 0	320 0	320 0	17 0	17 0	17 0	17 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	Shahpur		
...	...	...	...	28 11 24 0 22 0	200 0	200 0	200 0	14 0	14 0	14 4	14 4	14 4	14 4	14 4	14 4	14 4	14 4	14 4	14 4	Jhang (f)			
...	...	...	...	27 0 23 0 22 0	200 0	200 0	200 0	12 0	12 0	13 0	13 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	Montgomery		
...	...	...	...	24 0 23 0 23 8	90 0	90 0	90 0	14 0	14 0	14 12	14 12	14 12	14 12	14 12	14 12	14 12	14 12	14 12	14 12	Muzlum (g)			
...	...	...	...	21 0 23 0 19 8	0 0	0 0	0 0	*	*	*	*	13 8	13 8	13 8	13 8	13 8	13 8	13 8	13 8	13 8	Muzaffargurh (h)		
...	...	...	...	29 12 22 3 18 12	100 0	100 0	100 0	31 4	31 4	31 4	31 4	28 12	28 12	28 12	28 12	28 12	28 12	28 12	28 12	28 12	Dera Ghazi Khan		
...	...	...	...	30 12 29 6 24 0	125 0	125 0	100 0	50 0	50 0	55 0	55 0	47 8	47 8	47 8	47 8	47 8	47 8	47 8	47 8	47 8	Dera Ismail Khan (i)		
...	...	...	...	30 10 36 4 30 10	80 0	80 0	80 0	100 0	100 0	120 0	120 0	80 0	80 0	80 0	80 0	80 0	80 0	80 0	80 0	80 0	Bannu		
...	...	...	...	26 8 25 8 16 9	102 0	102 0	102 0	71 6	71 6	90 15	90 15	66 5	66 5	66 5	66 5	66 5	66 5	66 5	66 5	66 5	Kohat (j)		
...	...	...	...	24 0 21 5 16 8	105 0	105 0	96 0	44 8	44 8	56 4	56 4	49 0	49 0	49 0	49 0	49 0	49 0	49 0	49 0	49 0	Poshiwai (k)		
...	...	...	...	24 0 28 0	140 0	140 0	70 0	*	*	11 0	11 0	11 8	11 8	11 8	11 8	11 8	11 8	11 8	11 8	11 8	Hazara		
...	...	...	...	20 8 20 12 19 4	120 0	120 0	160 0	12 0	12 0	11 8	11 8	11 12	11 12	11 12	11 12	11 12	11 12	11 12	11 12	11 12	Nagpur		
...	...	...	...	21 0 25 0 19 8	96 0	96 0	118 0	*	*	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	Bhandara		
...	...	...	...	21 8 21 8 27 0	360 0	360 0	360 0	11 6	11 6	12 4	12 4	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0	Chanda		
...	...	...	...	19 0 20 0 24 0	120 0	120 0	120 0	11 4	11 4	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	Wardha			
...	...	...	...	26 0 26 0 32 0	275 0	275 0	275 0	9 4	9 4	8 8	8 8	8 8	8 8	8 8	8 8	8 8	8 8	8 8	8 8	Balaghat			
...	...	...	...	26 0 26 0 26 0	120 0	120 0	120 0	11 0	11 0	11 12	11 12	10 12	10 12	10 12	10 12	10 12	10 12	10 12	10 12	Jubulpore			
...	...	...	...	26 0 27 0 26 0	160 0	160 0	160 0	9 8	9 8	8 12	8 12	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	Saugor			
...	...	...	...	27 0 27 0 35 0	200 0	200 0	200 0	10 0	10 0	9 12	9 12	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	Daniel			
...	...	...	...	26 0 26 0 10 0	220 0	220 0	210 0	10 8	10 8	10 8	10 8	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	Seoni			
...	...	...	...	26 0 26 0 35 0	256 0	256 0	256 0	*	*	*	*	8 8	8 8	8 8	8 8	8 8	8 8	8 8	8 8	8 8	Mandua		
...	...	...	...	25 0 25 0 21 0	320 0	320 0	240 0	8 8	8 8	8 8	8 8	8 0	8 0	8 0	8 0	8 0	8 0	8 0	8 0	Betoli			
...	...	...	...	26 0 30 0 21 0	200 0	200 0	200 0	9 0	9 0	10 0	10 0	8 0	8 0	8 0	8 0	8 0	8 0	8 0	8 0	Chhindwara			
...	...	...	...	26 7 21 6 21 6	160 0	160 0	160 0	11 8	11 8	11 8	11 8	10 8	10 8	10 8	10 8	10 8	10 8	10 8	10 8	Hoshangabad			
...	...	...	...	24 8 25 0 25 0	140 0	140 0	140 0	11 0	11 0	10 6	10 6	10 8	10 8	10 8	10 8	10 8	10 8	10 8	10 8	Narsinghpur			
...	...	...	...	30 4 20 4 18 8	160 0	160 0	120 0	13 13	13 13	13 13	13 13	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	Nimati			
...	...	...	...	28 8 28 8 30 0	64 0	64 0	64 0	10 0	10 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	Ramgarh			
...	...	...	...	10 13 18 0 28 8	120 0	120 0	110 0	10 0	10 0	10 0	10 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	Samabalpur		
...	...	...	...	118 0 160 0 94 0	120 0	120 0	120 0	*	*	*	*	8 0	8 0	8 0	8 0	8 0	8 0	8 0	8 0	8 0	Bilaspur		
...	...	...	...	118 0 160 0 84 0	120 0	120 0	120 0	*	*	*	*	7 0	7 0	7 0	7 0	7 0	7 0	7 0	7 0	7 0	Arakan Division.		
...	...	...	...	10 0 10 0	160 0	160 0	120 0	160 0	160 0	40 0	40 0	40 0	40 0	40 0	40 0	40 0	40 0	40 0	40 0	Akyab			
...	...	...	...	4 0 4 0 4 0	50 0	50 0	160 0	*	*	...	...	...	...	...	...	...	...	...	...	Northern Arakan			
...	...	...	...	...	466 11	466 11	466 11	466 11	466 11	...	...	...	...	...	...	...	...	...	...	Kyaukpyoo			
...	...	...	...	19 2 19 2 19 2	320 0	320 0	320 0	50 11	50 11	50 11	50 11	22 10	22 10	22 10	22 10	22 10	22 10	22 10	22 10	Rangoon Town			
...	...	...	...	17 17 17 17 17	535 11	535 11	535 11	535 11	535 11	...	...	...	...	...	...	...	...	...	...	Tharrawaddy			
...	...	...	...	15 0 15 0 15 0	189 11	189 11	189 11	189 11	189 11	35 5	35 5	35 5	35 5	35 5	35 5	35 5	35 5	35 5	35 5	Prome			
...	...	...	...	16 13 16 13 16 13	246 0	246 0	246 0	246 0	246 0	...	...	...	...	...	...	...	...	...	...	Irrawaddy Division.			
...	...	...	...	15 13 15 13 15 13	246 0	246 0	246 0	246 0	246 0	25 5	25 5	25 5	25 5	25 5	25 5	25 5	25 5	25 5	25 5	Hmann			
...	...	...	...	12 3 12 3 11 1	220 0	220 0	220 0	220 0	220 0	35 8	35 8	47 7	47 7	47 7	47 7	47 7	47 7	47 7	47 7	47 7	Moulmein Town & Akyab		
...	...	...	...	399 3 399 3 399 3	399 3	399 3	399 3	399 3	399 3	24 2	24 2	24 2	24 2	24 2	24 2	24 2	24 2	24 2	24 2	Tavoy			
...	...	...	...	12 0 12 0 12 0	24 0	24 0	24 0	24 0	24 0	8 3	8 3	8 3	8 3	8 3	8 3	8 3	8 3	8 3	8 3	Toungoo			
...	...	...	...	250 0 250 0 250 0	250 0	250 0	250 0	250 0	250 0	6 6	6 6	32 3	32 3	32 3	32 3	32 3	32 3	32 3	32 3	32 3	Shwesgyi		
...	...	...	...	10 0 10 0 10 0	64 0	64 0	64 0	64 0	64 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	Halwee		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Secondarated			
...	...	...	...	18 0 18 0 19 0	64 0	64 0	64 0	64 0	64 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	Bolouria			
...	...	...	...	28 0 28 0 28 0	64 0	64 0	64 0	64 0	64 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	Chadderghat			
...	...	...	...	27 5 27 5 27 5	64 0	64 0	64 0	64 0	64 0	...	...	...	...	...	...	...	...	...	...	Amarapura			
...	...	...	...	16 0 16 0 16 0	200 0	200 0	200 0	100 0	100 0	10 0	10 0	11 0	11										

Bajra, jowar, salt, rice ; wheat, barley, gram falling, jowar, salt, rice. Bajra, jowar, salt, rice falling ; wheat, barley, gram falling, + 10% per kg. rawseed wholesale.

## PRICES CURRENT OF FOOD-GRAINS THROUGHOUT

POSITIONS,	Districts.	QUANTITIES PER RUPEE																											
		Wheat.						Barley.						Rice (best sort).						Great Millet (Cholan, Jowari, Halesi Sorghum).									
		Present fortnight.		Past fortnight.		Corresponding fort- night of 1882.		Present fortnight.		Past fortnight.		Corresponding fort- night of 1882.		Present fortnight.		Past fortnight.		Corresponding fort- night of 1882.		Present fortnight.		Past fortnight.		Corresponding fort- night of 1882.					
MYSORE	Bangalore	s	Ch	S.	Ch	S.	Ch	s	Ch	S.	Ch	S.	Ch	s	Ch	S.	Ch	S.	Ch	s	Ch	S.	Ch	s	Ch				
	Kolar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
	Tumkur	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
	Mysore	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
	Hassan	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
	Shimoga	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
	Eduar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
DODA	Chitradroog	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
	Coorg	8	7	8	7	8	14	9	15	9	10	8	7	14	3	13	11	10	10	18	11	18	9	18	10				
	Jaypore	16	0	15	8	16	4	22	8	31	0	22	0	6	0	6	0	8	8	8	9	0	20	0	20	0			
	Kishengarh	16	12	15	4	17	0	23	4	20	0	24	8	9	0	9	0	8	0	10	0	10	0	22	8	20	8		
	Kerrowles	16	14	15	16	17	13	25	10	21	14	22	8	16	0	10	0	12	0	11	4	11	4	18	11	19	10		
	Ulwur	17	6	16	4	19	1	22	15	20	8	26	13	8	10	8	10	9	0	10	8	10	8	11	22	0	21		
	Bhurtapore (City)	*	16	0	18	3	*	22	9	26	0	*	7	12	6	8	*	9	6	11	0	*	20	0	23	*			
RAJASTHAN	Ajmer	15	8	14	8	16	0	22	0	20	8	13	12	5	0	5	0	8	0	8	0	16	0	16	0	18	0		
	Deorai Cantonment	*	17	3	18	11	17	6	24	15	26	0	22	5	*	*	*	13	0	13	0	10	8	20	18	24	19		
	Kripnepur	18	12	13	12	16	12	20	12	20	12	28	9	*	*	*	7	13	7	13	8	0	19	0	19	0			
	Sirolees	11	8	11	4	16	■	20	0	22	0	20	0	6	8	6	8	7	0	7	8	8	0	14	0	14	0		
	Abu	11	12	11	■	15	4	16	13	17	10	23	0	7	0	6	4	6	8	8	1	7	6	8	0	13	0		
	Anadra	11	14	12	2	17	0	17	14	20	11	26	0	6	14	6	14	7	0	8	2	7	14	9	0	14	8		
	Hilly Tracts of Meewar	21	0	15	0	20	0	25	0	24	0	25	0	*	*	*	*	16	0	13	0	16	0	*	*	*	*		
	Meywar (Oodeypore)	18	18	13	7	14	10	17	9	17	15	19	8	9	6	9	6	9	19	*	*	*	*	*	*	*	*		
INDIA	Banewara (Meywar Agency)	21	0	20	0	21	14	*	*	*	*	*	10	0	10	0	8	12	17	8	17	8	18	12	*	*	*		
	Partabgarh ( )	17	8	17	16	18	0	*	*	*	*	*	8	7	9	6	10	5	9	6	10	10	12	3	*	*	*		
	Marwar (Jodhpore)	16	10	12	13	16	■	20	0	17	8	22	8	6	4	6	4	6	1	7	8	7	8	7	21	0	18		
	Bikaner	10	6	9	5	13	8	*	*	*	*	*	8	6	8	6	8	4	6	12	5	12	6	8	*	18	0	15	
	Boondes	No return received	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18	0	15
	Kotah	21	0	20	0	17	0	25	0	25	0	38	0	8	0	8	0	0	11	0	11	0	13	0	25	0	22		
	Tenk	No return received	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12	8	12
BHABHARAT	Jhullawar	17	5	16	8	14	2	20	0	20	14	15	15	*	*	*	*	7	1	7	14	10	2	22	0	21	14	18	
	Shahpura	No return received	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12	17	11
	Dholpur	16	10	15	■	18	8	24	4	21	11	27	4	10	2	10	2	9	2	10	16	11	4	12	6	21	12	24	
	Indore	14	6	14	8	16	0	*	*	*	*	*	8	9	9	3	8	0	10	0	10	14	10	0	19	3	20	0	22
	Gwalior	16	9	15	0	16	5	19	11	21	8	20	10	7	7	7	5	7	13	8	13	9	2	10	1	21	15	21	
	Goona	23	0	21	4	20	4	20	0	30	0	19	0	8	3	9	0	9	8	9	8	10	0	35	0	32	0	20	
	Heghalkhand (Ratnag)	21	9	22	3	21	0	49	0	86	12	32	0	7	0	7	0	8	0	17	6	17	8	18	0	37	0	35	

\* Not received.

DEPARTMENT OF FINANCE AND COMMERCE,  
(Statistical Branch.)

**INDIA FOR THE 1st HALF OF SEPTEMBER 1898—concluded.**

**IN SERIES OF 50 TOLLAHS.**

Gram.												Firewood.												Salt.							Districts.						
Present fortnight.						Past fortnight.						Present fortnight.						Past fortnight.						Wholesale.						Retail						Provinces.	
Present fortnight.			Past fortnight.			Present fortnight.			Past fortnight.			Present fortnight.			Past fortnight.			Present fortnight.			Past fortnight.			Present fortnight.			Past fortnight.			Chitradroog							
Ch.	S.	Ch.	Ch.	S.	Ch.	Ch.	S.	Ch.	Ch.	S.	Ch.	Ch.	S.	Ch.	Ch.	S.	Ch.	Ch.	S.	Ch.	Ch.	S.	Ch.	Ch.	S.	Ch.	S.	Ch.	Districts.	Provinces.							
31	3	30	9	31	5	29	12	28	6	22	2	110	0	110	0	110	0	10	1	9	14	8	10	9	10	9	11	8	2	Coorg	Coorg						
32	..	..	..	..	..	21	8	20	8	19	0	..	..	..	..	..	..	15	0	15	0	14	4	14	12	14	12	14	0	Jaypore	..						
33	..	..	..	..	..	23	8	21	8	21	3	..	..	..	..	..	..	..	..	..	..	16	0	16	0	16	0	16	0	Kishengarh	..						
34	..	..	..	..	..	26	0	21	14	22	..	..	..	..	..	..	13	5	13	12	13	14	13	0	18	..	19	8	Kerawleo	..							
35	..	..	..	..	..	22	11	20	6	24	..	..	..	..	..	..	15	7	15	7	15	13	14	12	14	12	15	6	Ulur	..							
36	..	..	..	..	..	22	4	21	..	23	0	..	..	..	..	..	..	..	..	..	12	1	12	4	12	0	12	0	Blantopore (City)	..							
37	..	..	..	..	..	23	0	22	0	22	0	80	0	70	0	70	0	17	0	17	0	..	..	15	0	15	0	15	0	Ajmete	..						
38	..	..	..	..	..	25	8	26	9	21	10	..	..	..	..	..	..	R. a. p.	R. a. p.	R. a. p.	R. a. p.	..	..	12	12	12	12	12	12	Deob Cautenment	..						
39	..	..	..	..	..	18	7	18	7	22	8	160	0	160	0	160	0	3	1	3	3	1	3	2	12	0	12	0	13	0	Eriapura	..					
40	..	..	..	..	..	16	0	17	0	21	0	160	0	160	0	160	0	3	0	3	0	3	0	0	12	5	12	5	12	5	Birohee	..					
41	..	..	..	..	..	15	4	14	4	21	4	160	..	160	0	160	0	3	8	0	3	8	0	11	8	11	8	11	8	Abu	..						
42	..	..	..	..	..	15	8	15	12	24	0	..	..	..	..	..	..	3	4	0	3	4	0	12	4	12	4	12	4	Aundra	..						
43	..	..	..	..	..	20	0	18	0	23	0	..	..	..	..	..	..	3	10	0	4	0	0	..	11	0	10	0	10	0	Hilly Tracts of Meywar	..					
44	..	..	..	..	..	15	3	17	3	10	0	5	0	5	0	5	0	S. Ch.	S. Ch.	S. Ch.	S. Ch.	9	6	9	154	9	11	8	154	9	124	Meywar (Uodeypore)	..				
45	..	..	..	..	..	35	0	30	0	35	0	..	..	..	..	..	..	R. a. p.	R. a. p.	R. a. p.	R. a. p.	per and.	..	..	10	10	10	10	11	4	Bénéwár (Meywar Agency)	..					
46	..	..	..	..	..	20	5	21	3	21	9	..	..	..	..	..	..	8	18	0	..	..	..	16	4	16	7	9	11	Partabgarh (..)	..						
47	..	..	..	..	..	20	0	16	9	22	8	..	..	..	..	..	..	2	7	6	2	10	0	2	8	0	16	0	16	0	16	10	Marwar (Jodhpore)	..			
48	..	..	..	..	..	17	12	16	4	18	0	..	..	..	..	..	..	S. Ch.	S. Ch.	S. Ch.	S. Ch.	..	..	..	11	8	11	8	11	8	Bikaner	..					
49	..	..	..	..	..	27	0	27	0	26	0	240	0	240	0	240	0	12	8	12	8	..	..	12	0	12	0	12	4	Boondoo	..						
50	..	..	..	..	..	22	4	31	4	17	16	..	..	..	..	..	..	10	2	9	12	10	12	9	14	..	8	10	10	10	10	Kotah	..				
51	..	..	..	..	..	23	9	21	0	26	0	..	..	..	..	..	..	13	8	13	8	13	3	12	10	12	10	12	6	Jhadlawar	..						
52	..	..	..	..	..	17	12	17	7	18	7	100	..	100	0	100	..	12	0	12	0	12	5	11	5	11	6	11	6	Shatpoora	..						
53	..	..	..	..	..	21	0	20	1	22	7	109	8	127	12	109	8	..	..	..	..	..	..	11	7	11	7	11	14	Dholpur	..						
54	..	..	..	..	..	32	0	30	0	25	0	200	0	200	0	200	0	12	8	12	0	11	8	12	0	10	8	11	6	Indore	..						
55	..	..	..	..	..	33	10	30	18	30	0	160	0	160	0	160	0	11	15	11	6	12	4	11	4	11	4	11	16	Gwalior	..						
56	..	..	..	..	..	32	0	30	0	25	0	200	0	200	0	200	0	12	8	12	0	11	8	12	0	10	8	11	6	Goma	..						
57	..	..	..	..	..	33	10	30	18	30	0	160	0	160	0	160	0	11	15	11	6	12	4	11	4	11	4	11	16	Hajballkhand (Satna)	..						

#### THEORY AND PRACTICE

D. BARBOUR,  
*Secretary to the Government of India.*

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. XXXVI of 1883.

## APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

Last return received	Railways.	Miles open	Receipts for week ending 16th September 1883		Receipts for week ending 16th September 1882		Total Receipts from 1st April to 16th September 1883		Total Receipts from 1st April to 16th September 1882		Total Income in 1883-84.	Total Decrease in 1883-84.
			Total	Per mile open	Total	Per mile open	Total	Per mile open per week	Total	Per mile open per week		
22nd Sept. 1883	Guaranteed.											
22nd Sept. 1883	Eastern Bengal . . .	172	R 1,69,927	988	R (a) 1,05,002	610	R 22,84,591	550	R (a) 20,39,095	492	R ...	R 2,55,426
15th ditto	Ootah and Rohilkund	547	69,307	127	547	94,879	178	22,96,190	174	26,84,978	906	3,88,788
15th ditto	Sind, Punjab & Delhi	676	1,34,105	198	749	1,81,443	916	42,60,829	282	54,20,564	804	11,50,796
15th ditto	Madras . . .	861	1,33,140	155	861	1,19,539	139	32,06,082	159	30,61,519	148	... 2,44,518
15th ditto	South Indian . . .	655	69,747	108	655	83,534	128	18,10,941	115	18,71,648	119	60,703
22nd ditto	Great Indian Peninsula	1,451	8,05,653	511	1,451	8,73,159	256	1,42,60,848	424	1,57,12,732	431	8,51,890
15th ditto	Bombay, Baroda and Central India . . .	461	61,290	133	461	1,88,552	301	45,99,204	413	52,47,813	474	6,48,409
	TOTAL . . .	1,823	R 43,109	196	4,896	10,75,088	218	R 34,27,629	287	R 30,28,144	297	R 26,00,515
	State.											
22nd Sept. 1883	East Indian . . .	1,507	R 6,68,940	441	1,509	R 8,97,415	605	R 1,82,51,231	568	R 2,36,06,831	655	R 36,55,100
22nd ditto	Calcutta and South-Eastern . . .	88	3,804	79	■■■	4,790	86	87,527	117	1,36,602	105	49,075
22nd ditto	Nalhati . . .	27	1,081	40	27	1,390	51	31,282	48	38,628	58	7,946
22nd ditto	Northern Bengal . . .	230	37,312	162	239	40,860	171	8,53,934	168	9,29,542	166	75,805
22nd ditto	Tuboot . . .	■■■	11,836	156	186	18,958	114	2,97,177	152	3,92,021	100	95,444
15th Aug. 1883	Petna-Gya . . .	■■■	7,071	134	...	(b) ..	..	(e) 1,76,518	154	(d) 1,58,868	189	... 17,780
8th Sept. 1883	Muttra-Hathras . . .	29	2,232	77	...	(b) ..	..	(e) 51,868	77	(f) 57,808	87	5,952
8th ditto	Cawnpore-Farrukhabad	87	5,320	61	..	(b) ..	..	(e) 1,49,399	74	(f) 1,46,924	75	525
22nd ditto	Dildarnagar-Chasipur	12	864	72	12	585	49	21,370	73	22,408	77	938
22nd ditto	Rajputana-Malwa . . .	1,116	1,67,318	149	1,117	1,68,900	149	47,00,786	174	55,30,176	206	8,28,610
22nd ditto	Wardha Coal . . .	45	5,992	133	45	18,208	223	2,89,038	220	3,29,237	205	90,199
22nd ditto	Nagpur & Chhattisgarh	98	2,374	29	149	7,833	49	2,58,570	108	6,20,165	173	3,63,795
15th ditto	Rangoon and Irrawaddiy Valley . . .	161	30,408	127	161	23,545	140	6,80,258	162	6,34,326	164	4,070
22nd ditto	Bindia . . .	75	4,716	69	75	4,184	56	1,42,420	78	1,41,965	78	... 1,164
15th ditto	Punjab Northern . . .	409	27,894	■■■	431	57,125	186	13,33,478	136	14,89,412	142	1,15,934
22nd ditto	Indus Valley and Kandahar . . .	660	78,831	112	660	84,975	129	19,33,158	121	34,64,468	219	15,81,835
22nd ditto	Muttra-Achmera . . .	28	1,610	70	23	1,810	57	31,807	57	35,113	68	3,808
22nd ditto	Kauma-Dburia . . .	32	1,506	47	32	3,151	98	34,845	45	65,988	80	11,833
22nd ditto	Rewari-Ferozepore . . .	..	..	..	89	7,180	81	..	..	1,57,425	74	1,57,285
	TOTAL . . .	3,169	R 374,819	118	R 3272	4,84,484	133	R 1,09,60,664	143	R 1,41,82,653	175	R 33,22,011
22nd Sept. 1883	Assisted Company.											
22nd Sept. 1883	Bengal Central . . .	.	.	.	35	1,686	47	...	...	50,504	60	50,504
	Native States											
15th ditto	Bhavnagar-Goudal	194	9,382	48	193	10,038	52	4,36,437	91	4,70,061	101	42,604
15th ditto	Nizam's . . .	121	12,626	104	131	14,707	121	3,97,846	130	3,57,809	120	... 41,847
15th ditto	Mysore . . .	86	5,804	67	86	4,485	52	1,80,594	68	1,30,959	59	... 9,947
22nd ditto	Jodhpore . . .	19	3,113	104	19	500	28	(A) 8,193	28	16,820	37	10,638
	TOTAL . . .	420	R 30,875	73	419	R 29,676	71	R 9,61,118	97	R 35,172	86	R 4,068
	GRAND TOTAL . . .	8,919	R 30,12,244	208	(B) 10,134	R 24,35,290	241	R 8,58,00,681	279	R 7,49,22,604	308	R 26,42,182
	Gross Estimated Expenses . . .	..	..	..	..	..	..	R 3,86,38,615	141	R 3,79,41,619	154	... 494
	Net Receipts . . .	..	..	..	..	..	..	R 18,63,986	132	R 18,60,91,875	149	R 62,37,909

(a) Exclusive of the Company's share of the earnings of the Bengal Central Railway.  
 (b) Return not received.  
 (c) Total receipts from 1st April to 15th August 1883.  
 (d) Total receipts from 1st April to 15th August 1882.

(e) Total receipts from 1st April to 16th September 1883.  
 (f) Total receipts from 1st April to 1st September 1882.  
 (g) Excludes mileage of Petna-Gya, Muzore, Motihari and Outram State Railways (62 + 20 + 87).  
 (h) Total receipts from 24th June to 15th September 1882.

R. A. BARGRAUNT, Major, R.E.

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## REPORTS ON THE STATE OF THE SEASON AND PROSPECTS OF THE CROPS FOR THE WEEK ENDING THE 9TH OCTOBER 1883.

**GENERAL REMARKS.**—Rain in fair quantity fell during the past week throughout the Madras Presidency and Mysore, which has revived the dry crops; but more is still needed in some parts. In the Bombay Presidency excessive rain has caused injury in three districts of the Deccan, while in others more rain would be beneficial. In Gujarat the crops are in good condition, but in Sind the river continues low. Some damage has also been done by heavy rain in Barar, but prospects there and in Hyderabad remain favourable. Good rain has fallen in Marwar, and lighter showers in other parts of Rajputana and the Central India States. The crops in both Rajputana and Central India promise fair, but rain is needed in Ulwar.

In Burma and Assam rice prospects are on the whole good, though in the former province the deficient rainfall of the season has injured the crop in three districts. Floods have also caused some destruction.

In Bengal, Central Provinces, North-Western Provinces and Oudh, and Punjab there has been little or no rain during the week under report, and the late rice crop of Bengal is in a precarious state.

Harvesting of the *kharif* is going on in most parts of India, and ploughing and sowing for the *rabi* are also in general progress, though retarded in Bengal and Northern India by the early cessation of the rains. The outcome of the *kharif* is not yet known, but will probably be below average, especially in North-Western India.

The condition of cattle has improved, but mild cattle-disease still prevails.

Except for the prevalence of autumnal fever, the public health is fair.

Prices show a tendency to rise in Bengal, owing to the unseasonable weather. Elsewhere they are either stationary or falling.

Presidentcy or Province and District.	Rainfall for week under report.	State of agricultural prospects.
<b>Madras—(Oct. 10th)</b>		
Bellary	1.61 (average of eight stations).	Standing crops wet generally good. Dry recovering a little on account of recent rain. Harvest <i>enggoli</i> , yield below average.
Kurnool	1.99 (average of nine stations).	Standing crops fair. Week's rainfall sufficient. Excessive in parts. Harvest <i>cotton</i> , <i>sugarcane</i> , and <i>indigo</i> , yield half to three-fourths. Cattle-disease in six talukas.
Ganjam	.73 (average of eleven stations).	Standing crops generally thriving.
Kistna	2.01 (average of thirteen stations).	Standing crops generally recovering. Rain still needed in some talukas. Harvest <i>maize</i> and <i>cumboo</i> , yield below half. Small-pox, fever, and cattle-disease in parts. Ten deaths from cholera.
Chinglepot (Madras)	2.78 (average of eleven stations).	Standing crops reviving in three talukas on account of recent rain. Withering in two talukas. Harvest <i>kor</i> , <i>paddy</i> , &c., yield half. Small-pox, measles, and cattle disease in parts.
Coimbatore	.94 (average of fourteen stations).	Standing crops, dry crops want rain in five talukas and slightly improving in others from recent rain. Harvest <i>paddy</i> , <i>cholam</i> , <i>ragi</i> , and <i>cumboo</i> in parts, yield average. Eleven deaths from cholera in two talukas. Fever and small-pox in parts.
Tanjore	3.78 (average of thirteen stations).	Standing crops generally good. Rainfall general and beneficial. Harvest <i>paddy</i> , <i>cholam</i> , <i>ragi</i> , and <i>cumboo</i> , yield below average. Thirty deaths from cholera.
Madras	1.26 (average of eight stations).	Standing crops failing. Harvest <i>paddy</i> in two talukas, yield average in one and poor in the other.
Malabar	1.44 (average of fourteen stations).	Harvesting continued. Second crop cultivation progressing in nine talukas. Existing cultivation good. Small-pox in nine talukas; fever in four. Cattle-disease slight in one taluk.
Travancore	.051	Harvest almost over. Preparations for next year progressing. Fever and dysentery prevail. One death from small-pox. <i>General Remarks.</i> —Prospects good.
<b>Bombay—(Oct. 10th)</b>		
Karwaras	No rain	River at Kotri on 8th 8 feet 11 inches against 10 feet 10 inches on same date last year. Fever in eight talukas. Cattle-disease in four talukas. Loss of 166 buffaloes and cows in Tatta. Small-pox in two talukas, 3 fresh cases, 1 death. Wheat, rice, and <i>bajri</i> in Kurnardeo 26, 29 and 45, in Manjhand 22, 28 and 40, in Tatta 24, 30 and 37, and in Sujawal 24, 30 and 38 lbs. per rupee, respectively. <i>Kharif</i> harvesting still continues. River has fallen 11 inches since last week and was 1 foot 11 inches lower on 8th instant, than on same date last year. Fever in six, small-pox in one, and cattle-disease in three talukas. Wheat 25, <i>bajri</i> 39, <i>jvari</i> 48, red rice 26, and white rice 23 lbs. per rupee.
Hyderabad	...	...

Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.
<b>Bombay</b> —contd.		
Ahmedabad	..	Rain wanted for rice in some talukas. Crops healthy. Cholera in the city, 1 case fatal; slight fever in some talukas. <i>Bajri</i> 28 and wheat 25 lbs. per rupee.
Baroda	..	Total rainfall 45.20. Crops in good condition. Cholera has disappeared. <i>Bajri</i> 27 and rice 23 lbs. per rupee.
Surat	..	Total rainfall 55.77. Crops good and thriving. Cholera in Pardi, 27 cases, 3 fatal. <i>Juari</i> 34 and <i>nagri</i> 43 lbs. per rupee.
Nasik	.	The heavy rain has damaged <i>bajri</i> , cotton, <i>urd</i> , and <i>mang</i> crops. <i>Rabi</i> sowings retarded for want of break. Locusts throughout the district doing damage to crops in places. Cholera in Kalwan taluka, 1 attack, 1 death. <i>Bajri</i> 31, wheat 28, and rice 22 lbs. per rupee.
Coinaba (Bombay)	..	Total rainfall to date 79.88, being 10% above average. Temperature normal. Vapour in air excessive. Abnormal wind southerly on 3rd and 4th. Thunder and lightning daily.
Poona	..	Standing crops good. <i>Rabi</i> sowings in progress. <i>Bajri</i> 40 and <i>juari</i> 60 lbs. in Poona <i>bajri</i> 34 and <i>juari</i> 43 lbs. per rupee.
Ahmednagar	..	<i>Kharif</i> crops injured on account of excessive and continuous fall of rain, and <i>rabi</i> sowings retarded. Cholera 51 attacks, 15 deaths. Cattle-disease in Kopurwadi and Sangamner. <i>Bajri</i> maximum 57 lbs. in Jankhed, minimum 39 in Akola. <i>Juari</i> —maximum 69 lbs. in Jankhed, minimum 48 in Akola.
Sholapur	..	Total rainfall 36.72. <i>Kharif</i> crops in good condition. <i>Rabi</i> sowings nearly completed. Cholera 12 cases in Madha taluka, fatal none. <i>Juari</i> 66 and <i>bajri</i> 62 lbs. per rupee.
Dharwar	..	Crops which were withering are reviving, but more rain wanted for some crops, especially rice. Prospects promising. Slightague and cattle-disease in three talukas. <i>Juari</i> 61 and rice 32 lbs. per rupee.
Kanara	..	Total rainfall 136.66. Small-pox 4 cases, 1 death in Siddspur. Plucking betelnut and cardamoms continues. Common rice 11 Karwar 14, in district average 15 seers per rupee.
Rajkot	..	Total rainfall 27.63. General health fair. Weather hot. <i>Bajri</i> 29 and <i>juari</i> 34 lbs. per rupee.
<b>Bengal</b> —(Oct. 10th)		<i>General Remarks.</i> —River continues low in Sind. Rain in almost all the districts of the Presidency still wanted in parts of Ahmedabad, Belgaum, and Dharwar. Crops in good condition in Gunaori, Poona, and Sholapur, but injured by excessive rain in Nasik, Khandesh, Ahmednagar, and part of Kaladgi. <i>Rabi</i> sowings in progress in some districts. Little damage from locusts. Cholera, fever, and cattle-disease in a few places.
Chittagong	..	Weather seasonable. Outturn of <i>aus</i> rice fair. Prices stationary. Cattle-disease still continues.
Dacca	..	<i>Aus</i> rice and jute still being cut. Harvesting of <i>akhiri</i> paddy continues. Prospects of crops good.
24-Pargannahs (Calcutta)	..	Early <i>aus</i> harvested. Rice crop in low lands good, but rain much wanted for the crop in high lands. Public health good.
Mymensingh	..	Weather hot and dry during the day, cool in the mornings. Rain much wanted for late rice which is gradually drying up; there is now very little hope of an average crop.
Rajshahiys	..	Weather hot and rainy. Late rice suffering much for want of rain. Some cholera reported.
Bardwan	..	Weather intensely hot for the time of the year. Rain much wanted everywhere. Prospects unfavourable.
Rungpore	..	Weather hot. Prospects of crops fair. Rain much wanted. Fever prevalent.
Bhagalpur	..	More rain wanted. Rice crop in high lands has suffered much from protracted drought. That in low lands still doing well. Preparation of lands for <i>rabi</i> sowings being delayed.
Patna	..	Prospects of crops on high lands suffering for want of rain. Prices rising. Fever prevalent.
Durbhanga	..	Rain much wanted for paddy, <i>juari</i> , and <i>rakes</i> . Sugarcane and cotton growing well. Plantation of potatoes going on. Cholera still reported from Barhi and Bihar sub-divisions.
Hazaribagh	..	Weather very hot. Prospects of crops becoming worse. Rain badly wanted and no indication of any coming. Public health generally good.
		Days warm. Mornings and evenings cool. Paddy suffering in all parts of the district owing to absence of rain for a considerable time. Public health good.

Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.
<b>Bengal—contd.</b> <b>Cuttack</b>	No rain	Early rice being threshed and gathered. Late rice being weeded; but rain urgently wanted. Price of rice stationary. Public health good. <i>General Remarks.</i> —Slight rainfall reported from Chittagong and parts of Burdwan, but none from the other reporting districts. Want of rain is generally much felt throughout the province. In several places the standing rice crop on high lands is suffering a great deal, but on low lands it is still generally doing well. Unless rain falls soon the general prospects of this crop will be seriously affected. The <i>bhado</i> crops have been gathered in, but there is no sufficient manure in the soil to prevent the <i>rabi</i> crops being sown. In some districts prices show a marked tendency to rise owing to the approach early cessation of the rains. Fever is prevalent in some districts, otherwise the general health is fair.
<b>N. W. Provinces and Oudh—</b>		
Banaras (Oct. 9th)	No rain	Both <i>rabi</i> and <i>kharif</i> harvests will suffer from want of rain. Fever in places. Prices falling, except rice and barley.
Allahabad ( " 10th)	.	Weather hot and dry. Nights cool. More rain wanted for <i>rabi</i> sowings. Harvest of <i>laukar</i> , <i>kakar</i> and <i>mukta</i> fair average. No sickness. Prices of <i>bajri</i> and <i>jauar</i> risen and <i>maize</i> slightly. Early rice fallen 4 scts. other crops easy.
Gorakhpur ( " 7th)	.	Cloudless weather. Rain wanted. Crops promising. Some cholera in the city and cattle disease in east of district. Price steady.
Jhansi ( " 8th)	No rain	Fair grain for this season of the year. <i>Kharif</i> crops doing well. Rain much needed for sowing of <i>rabi</i> . Land and wells have not been filled as usual. Prices fluctuating. Health of people and cattle good. Cattle deficient.
Agra ( " 9th)	No rain	<i>Rabi</i> ploughing in progress and gram being sown, but west wind drying soil quickly. <i>Kharif</i> crops reported to be drying up. Fever in four parganas. Prices steady.
Bareilly ( " " )	.	Crops suffering from drought and west wind. <i>Rabi</i> sowings and <i>kharif</i> harvest in progress. General health good.
Meerut ( " " )	No rain	Prospects generally favourable, but more rain wanted for sowing of <i>rabi</i> . Ploughing for <i>rabi</i> in progress and gram being sown. Health good. Prices steady.
Kumaun ( " " )	.	Weather fair. Crops all cut. General health good. Cattle disease continues. Prices unchanged.
Lucknow Partabgarh ( Oct. 9th)	No rain	No report received. Prices rising slightly. Owing to <i>rabi</i> sowings, the late rice <i>jarhan</i> is suffering from drought. Slight fever reported at Kunda.
Sitapur ( " " )	.	Rain wanted throughout. <i>Dhankar</i> lands cannot be sown. Public health good. Prices somewhat fluctuating.
Fyzabad ( " " )	No rain	<i>Kharif</i> crops being out. Public health good.
Rae Bareli ( " 8th)	No rain	Wind very strong. Fields are being prepared for <i>rabi</i> . <i>Kharif</i> is being harvested. General health good. Supplies plentiful. Prices steady.
Cawnpore ( " 9th)	No rain	For <i>rabi</i> sowings rain is very desirable. Some slight injury has been done to <i>ragi</i> and <i>bajri</i> by insects in pargana Sirci, Sitampur. Fever and cholera still prevailing, but on the whole the health of the people is good. Cattle disease in a few villages of two parganas continues. Prices almost stationary.
Fazlabad ( " " )	... .	Cloudy. Hot in the day time, cool mornings and evenings, and almost cold at night. Fever severe where rainfall is less in greatest and where is no canal irrigation. <i>Bajri</i> and <i>jauar</i> to some extent withering in the north in talukas.
<b>Punjab—(Oct. 9th)</b>		<i>General Remarks.</i> —No rain has fallen. The <i>kharif</i> crops in several districts have suffered some injury from drought, while in others they are reported to be satisfactory. Rain is generally wanted for the <i>rabi</i> sowings. Cholera is reported in Gorakhpur and Cawnpore, and there is severe fever in parts of Fazlabad; otherwise the public health is good. Prices are generally steady.
Delhi	..	Health good. Rain wanted. Prices of barley and <i>jauar</i> falling. Prices of other food grains stationary.
Hissar Umballa	..	Health good. Crops thriving. Prices stationary.
Jullundur	..	Health and crop prospects good. Prices stationary.
Amritsar	..	Health and condition of crops good. Prices falling.
Sialkot	..	Health and barley prospects good. Prices falling.
Ferozepore	..	Health and <i>bajri</i> prospects good. Prices falling.
Lahore	..	Health and <i>bajri</i> prospects good. Prices falling.
Rawal Pindi	..	No report received.
Mooltan	..	Health good. Crop prospects good and average. Prices fluctuating.
Dera Ismail Khan	..	Health good. <i>Kharif</i> being harvested. Prices stationary.
Peshawar	..	<i>Kharif</i> crops in daman and shall lands average, in irrigated lands fair. <i>Rabi</i> ploughing in progress. Prices steady.
		Fever decreasing. <i>Kharif</i> crops suffering for want of rain. Prices falling.
		<i>General Remarks.</i> —Slight rain in the Rawal Pindi district. Health and <i>kharif</i> prospects are generally good.

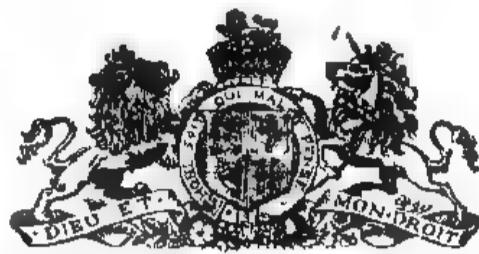
Presidency or Province and District.	Rainfall for week under report.	State of agricultural prospects.
<b>Central Provinces—(Oct. 10th)</b>		
Nagpur	• 82	Weather bright and sunny. Prospects fair. Rabi sowings begun. Health good. Prices steady.
Jubbulpore	Nil	Weather clear and hot. Crops in fair condition. Cotton in flower. More rain wanted. Prices stationary. Health good.
Satpur (Oct. 9th)	Nil	Weather cloudy and threatening rain. A few showers would be beneficial to crops. Prospects favourable. The unsettled state of the weather is retarding the rabi sowings. Prices steady. Health fair.
Beoni	• 91	Weather cloudy and oppressive. Reaping of minor crops in hand. Rabi sowings commenced. Fever prevalent. Prices stationary.
Hoshangabad	Nil	Weather hot and cloudy. Prospects good. Land ready for rabi sowings. Rice being harvested. Health good. Wheat 15 and rice 10 seers per rupee.
Khandwa	• 44	Weather cloudy and close. Prospects good. Four deaths from cholera. Prices falling.
Raipur	Nil	Rain much wanted. Rabi sowings commenced. Cholera in Raipur and a few villages in Dhoog. Prices steady.
Bandalpur (Oct. 8th)	Nil	Weather very favourable. Latter rice crop attacked by insects. Health good. Common rice 34 seers per rupee.
		<i>General Remarks.</i> —More rain would be beneficial in the northern districts, and is reported to be needed in the rice districts to the east of the provinces. Ground in excellent order for rabi sowings which have in some places been commenced.
<b>British Burma—(Oct. 8th)</b>		
Akyab	1.81	Total rainfall 176.50. Public health good. 43 deaths among cattle have occurred in three townships, elsewhere health of cattle good. Crop prospects favourable. An increase of about 4,700 acres expected in five townships.
Rangoon	2.00	Total rainfall 75.33. One death from small-pox, otherwise public health good. Price of paddy from Rs. 84 to Rs. 91 per 100 baskets.
Bassein	1.37	Total rainfall 83.71. Public health good. Eight deaths of cattle in Kyonpyan circle, 62 in Thandaw and 12 in Kaungyidaw townships. Partial floods in Kymkpyau and Myanna townships. Partial blight in a few circles on the whole. Paddy plants promising. Price of paddy from Rs. 84 to Rs. 100 per 100 baskets.
Amherst (Moulmein)	1.04	Total rainfall 163.27. Public health and health of cattle good. Crops healthy. In Moulmein town public health good. General appearance and progress of crops good. No damage from drought, flood or insects. Health of cattle good.
Henzada	2.79	Total rainfall 79.52. One death from small-pox in Hanzala township, otherwise public health good. Health good. Health of cattle good. Transplanting except in Kyayin completed. General appearance of crops good.
Thayetmyo	0.68	Total rainfall 88.16. Public health good. 72 deaths of cattle in Myedi. 18 cases of cow-pox in Kama. In Myedi the area planted is one-sixth less than last year. Rain wanted. Crops will be light in Thayetmyo township. Crops cannot exceed one-third of full crops, may be less in Kama. Paddy reported as withering from drought. In Mindon only half culturable area planted. Drought prevalent.
Shwezigon	3.03	Total rainfall 133.66. Small-pox reported at Thayetmyo and Kyaukkyi circle and Ahnu Yetha circle, otherwise public health good. Health of cattle good. Sowing and transplanting completed. Crops progressing favourably. Price of paddy Rs. 74 per 100 baskets.
Pagan Tharrawaddy	6.10	No report received.
Frome	0.95	Total rainfall 95.07. Public health good. Eight deaths of cattle in two townships; health of cattle in all other townships, except Gyobingonk where slight cattle-disease prevails, good. Ploughing, sowing, and transplanting progressing. 200 acres destroyed by floods in Gyobingonk township. Crops healthy. Price of paddy Rs. 80 to Rs. 125 per 100 baskets.
Thonegwa	4.62	Total rainfall 81.21. Public health good. Twelve deaths of cattle in Dedage township. 6,000 acres destroyed by floods in Kyaukbaue circle, 1,000 acres in Kyaukpadok circle, Shwelaung township. Replanting going on in Kyaukbaue and other circles of Shwelaung township. Crops good in Itanabyn, Pyapou, and Dedage township and Maubin. Price of paddy Rs. 90 to 95 per 100 baskets.
Toungoo	2.90	Total rainfall 76.94. Public health and health of cattle good. Transplanting progressing. Price of paddy Rs. 85 per 100 baskets.
Kyaukphyoo (Sept. 29th)	1.30	Total rainfall 154.04. Eight deaths in Myandum, 6 in Ramel, and 6 in Kyaukphyoo townships occurred from cholera. Health of cattle continues good.

Presidency or Province and District.	Rainfall for week under Report.	State of agricultural prospects.
<b>British Burma—Month.</b>		
Kyaukphyoo (Oct. 6th)	0.05	Total rainfall 700-00. The following districts from cholera area reported: Ngaputawin circle 2, Kyaukphyoo 2, Nyaung 2, Mayin 7, Mingyan 1, Hlaingwala 1. Including 57 them. Mawlam 3, Chauk 1, Myitkyina 1, Myitmarwa 1, Total 2. No diseased cattle reported. Crops damaged in some areas.
Sandoway (Sept. 29th)	0.02	Total rainfall 160-00. Three days' rain in delta in northern township, elsewhere pull ahead good. No fresh case of cholera reported. Crops fairing well.
Do. (Oct. 6th)	0.05	Total rainfall 203-83. Public health good. No fresh case of cholera reported. Crops flourishing.
Hanthawaddy	Nil	Public health and health of cattle good. 14,300 acres have been ploughed in Hlinc township. Crops destroyed by flood in Hlinc township. In some parts replanting going on. Wages of ploughing labour 6/- buckets of paddy per man in Hlinc township. Price of paddy from Rs. 80/- to Rs. 10/- per 100 bushels.
Mergui (Sept. 22nd)	4.95	Total rainfall 110-00. Public health good. Crops and cattle healthy. 34,500 acres ploughed and sown. Price of paddy (Rs. 6/-) per 100 bushels.
Do. (Oct. 20th)	0.05	Total rainfall 155-43. Public health and health of cattle good. Prospects of crops good.
Tavoy	0.03	<i>General Remarks.</i> —Rain up to date still deficient compared with the rainfall of last year, with the exception of a slight increase of cholera in Kyaukphyoo district. Public health good. No marked increase of cattle mortality. Agricultural prospects favourable, except in Taungbyo where owing to continued drought or grave suffering seriously in Kyaukphyoo. The deficiency of rain is falling again in the course in parts of Hanthawaddy and Thatonewa. Considerable damage caused by floods. The price of paddy keeps up.
<b>Assam—(Oct. 10th)</b>		
Gauhati	Nil	No report received.
Sylhet	Nil	State and prospect of crops good. Public health also good.
Cachar	Nil	Weather warm. Prospects of <i>sali</i> crops good. More than half of <i>gur</i> crops reaped. Common rice 17/- acres per rupee. Public health good.
Dibrugarh	0.18	Weather reasonable. Prospects of <i>saldanha</i> good. Ploughing for winter crops in progress. District healthy.
<b>Mysore and Coorg—(Oct. 10th)</b>		
Bangalore	2.69	Prospects of season improved owing to recent rains. Crops generally in good condition.
Mysore	2.68	Crops in good condition. Prospects favourable. Sowing operations commenced.
Menora	0.18	Rainfall beneficial for rice crops, but injurious to drying of cardamoms. C. Rice berries fast ripening. The <i>giru</i> rabi crop is being reaped. Prices stationary. Public health good.
<b>Madras—Hyderabad—(Oct. 10th)</b>		
Amaravati	2.25	Crops in good condition. Preparations for rabi sowings in progress. Wheat 16 and <i>juari</i> 26 acres per rupee.
Akola	2.78	Crops slightly injured from excessive rains. The break now in the weather will be beneficial.
Hyderabad	Average rainfall 70	Total from 1st January 28-00. Rainfall of the week benefited all crops damaged and <i>khari</i> crops to slight extent in one taluk. In general standing crops are prospering. Cholera continues in a mitigated form in one taluk. No outbreak disease reported by Nizam's Government, but foot and mouth disease has broken out among cattle of heavy field battery at Trimbalberg. Prices—wheat 15/-, coarse rice 10/-, white <i>juari</i> 23, yellow <i>juari</i> 26, and <i>gur</i> 22/- acres per current rupee rupee.
<b>Central India—States—(Oct. 10th)</b>		
Indore	0.23	Weather clear and cloudy. Rain apparently impending. Agricultural prospects favourable.
Moren (Gwalior)	Nil	Prospects good. Rabi sowings commenced.
Sutara	Nil	Prospects good.
Burhanpur	Nil	No report received.
Kosli	Nil	Weather reasonable. Land being prepared for rabi. Public health good.
Gorakhpur	Nil	Health and prospects good.

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Presidency or Province and Districts	Rainfall for week under report.	State of agricultural prospects.	
Central Provinces—			
Bhopal	Madhya P. Oct 10th	Prospects good. Bitter cases of cholera reported from Barwani between 25th September and 1st October 1933, 5 fatal. Prices stationary.	
Agar	0.8	Agricultural prospects satisfactory. Health good.	
Sagar	0.5	Crops and public health good.	
Nawapur	0.8	Agricultural prospects favourable. Health good. Prices falling.	
Nawapur (Dhopayad)	0.5	No report received.	
Reputations			
Ally	Oct 10th	2.20	Weather clear with occasional clouds and thunderstorms. Weather reasonable.
Shanti	7th	2.40	Tanks and wells full. Health good. Crop prospects good. Weather fine and warm. Very violent rain and thunderstorms on 2nd. Eight months' water in Jubbulpore city. Tanks and wells fast filling up. Health good. Weather cloudy and rainy. Prospects fair. Prices stationary. More rain expected.
Mangarh	5th	3.30; splendid showers on 1st.	Tanks and wells full. Health good. A little fever prevalent. Crop prospects good. Showers during week beneficial for sowings of spring crops.
Meywah	1st	0.37	Prospects good. Weather sultry and close. Health good.
Harowati	( - )	Kotah: 37; Tank: 60 Shalpura: 01.	Health and prospects good.
Ghaliwind	( - )	8th	Weather reasonable. Prospects unchanged.
Amer	( - )	9th	No report received.
Gajapati	( - )	.....	No report received.
Montapore	( - )	.....	Crops suffering from want of rain. Gram and barley rising, other crops steady. Health good.
Ulwick	( - )	9th; 8th	

E. C. BUCK,  
Secy. to the Govt. of India.



# SUPPLEMENT TO The Gazette of India.

N<sup>o</sup> 42.} CALCUTTA, SATURDAY, OCTOBER 20, 1883.

## OFFICIAL PAPERS.

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### GOVERNMENT OF INDIA. PUBLIC WORKS DEPARTMENT

#### GENERAL REPORT OF THE PUNJAB OIL LANDS, BY BENJAMIN SMITH LYMAN, MINING ENGINEER, PUBLIC WORKS DEPARTMENT OF THE GOVERNMENT OF INDIA.

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##### 1.—SITUATION.

The oil lands of the Punjab all lie between north latitude  $32^{\circ} 31'$  and  $33^{\circ} 47'$  and east longitude  $71^{\circ} 22'$  and  $73^{\circ} 9'$ ; say within a space of 102 miles long east and west, by 88 miles wide north and south, with Rawalpindi two miles inside the eastern edge and eleven miles inside the northern edge. Outside of these limits no lands can properly be called oil lands, although around Murree, and perhaps elsewhere, the lime rock is in many places impregnated with bitumen, and sometimes even has small drops of tar in it large enough to be seen.

The north-easternmost oil spring is the one near Rutta Otoor, 11 miles north by east of Rawalpindi; the next so-called oil spring is in the first Cheerpar Mountain near Runneal, and eight miles south-west of Pindi; then comes the oil spring in the Seel River at the mouth of the Bussala near Moorut, and  $10\frac{1}{2}$  miles south-west by west of Pindi; then the Loondeegar asphalt and oil, also near Moorut, and 14 miles south-west of Pindi; the Gunda oil wells, 23 miles west of Pindi; the Chhurrut old oil boring at Chhurrut village, and 28 miles west of Pindi; the Boraree old oil well near Chhurrut and  $28\frac{1}{2}$  miles

west of Pindi; the Jasir old oil boring near Jasir, and 29 miles west of Pindi; the Dulla asphalt between Boota and Buttio and 38½ miles west of Pindi; the Punnoba oil springs at Punnoba (Kohat District) near Shekh Khan, 25 miles east of Kohat, and 67 miles west of Pindi; the Aluggud asphalt and rock tar, on the Aluggud brook (Bunnoo District), ten miles and a half south of Eesa Khel, and 124 miles south-west by west of Pindi; the Chhota Kutta oil springs near Jaba (Bunnoo District), 10 miles south-east of Kalabagh, and 59 miles south-west by west of Pindi; the Burra Kutta oil springs, half a mile south-east of the last; the Sadeealee rock tar near Nara (Jhelum District), and 90 miles south-west of Pindi; the Chimoor rock tar near Murdowal (Shalpoor District), and 83 miles south-west of Pindi; the Hungooch rock tar near Dhuddur and Murkoom (Shalpoor District), and 81 miles south-west by south of Pindi; and the Dooma rock tar near Kubukkee (Shalpoor District), and 77 miles south-west by south of Pindi.

Many of these are places where only very small and unimportant traces of oil or asphalt are found; yet they are well known to the inhabitants of the country for miles around, so familiar do they become in tending their flocks with almost every foot of ground in the mountains. As careful inquiry from them has brought to light no other traces even of oil, it is pretty certain that none such exist, except possibly a few quite insignificant ones.

The oil is commonly called by the natives "mattee ka tel" (earth oil), and at Jaba it is said "gunduk ka tel" (sulphur oil); the rock tar or blackened oil is called at Aluggud and at Jaba "kalapani"; at Sadeealee, "leleera"; at Hungooch and Dooma, "leloora"; the solid asphalt is often called "moomeai," sometimes "meemeai."

## 2.—LAY OF THE LAND.

The River Indus flows south-south-westerly from the northern edge of the region described to its south-western corner, falling in that space from about 800 feet above the sea to about 650. It is joined midway by the Sohan, which comes to it with a general west-south-westerly course from near Rawalpindi, where its waters are about 1,700 feet above the sea. The Jhelum River runs (about 700 feet above the sea) south-westerly across the very south-eastern corner past Pindi Dadan Khan. The Koorum empties into the Indus on the west just south of Eesa Khel. A dozen miles north of Pindi are several parallel high ridges that run in a north-east and south-west direction on the edge of Rawalpindi and Hazara Districts. A dozen miles west of the meridian of Pindi these ridges die away; and half a dozen miles south of their end begin the Choor Hills, that run first westerly, and then west-north-westerly to the Indus, and are perhaps continued beyond in the hills of Punnoba; but these run south-westerly, and then west-south-westerly, and soon west again, and there are several parallel ranges south of them for 25 miles. At Moorut, near the Bussala and Loondeegar oil places, begins a ridge some 3,100 feet high above the sea, called the Khairee Moorut (often called Gibraltar in Pindi), which runs south-westerly for about 20 miles and dies away. Half a dozen miles east of Moorut are three or four parallel north-east and south-west ridges of 200 or 300 feet high, called the Cheerpar Mountains, running nearly to the meridian of Pindi. Along the southern edge of the region the Salt Range, rising in places even to 5,000 feet above the sea, runs at first west-south-westerly, then about the middle of the southern edge, which it just crosses, it turns sharply north-north-westerly to the Indus a few miles below the mouth of the Sohan, and continues the same course, and a more northerly one on the west of the Indus, until it meets the east and west ranges already mentioned. In the south-western corner the Kasirkot double range, with the Aluggud Valley between, rises to 2,200 feet above the sea, and runs southerly west of the Indus and south of the Koorum. The country south and south-west of the Salt Range is flat and about 700 feet above the sea; the country north of the Salt Range between the mountains and hills already mentioned, and few other small parallel ones, is comparatively flat, and from 1,200 feet above the sea on south and along the Indus to 1,800 feet on the north-east; of course the streams cut valleys in this comparative plain, making it a rolling country. The smaller narrow valleys as far south as the Sohan, even near its mouth, and this river,

also show a striking parallelism to the general course of the mountain ranges on either side.

### 3.—GEOLOGY.

*a. Structure.*—Almost all of the mountain ranges already mentioned seem to be formed of rocks that lie in saddle form, and most of the ranges have several such parallel ridges. The Cheerpar Mountains, however, are quite small, and, as they seem to have but one dip, are perhaps formed by only one-half of a saddle. The Salt Range has also been said by some to have on its southern edge a northerly dip, as if the southern half of a saddle were wanting, but this survey did not lead to an examination of that part of the range. The rocks, then, of the oil region lie in waves, the tops of the waves in certain places forming mountain ranges; but in the greater part of the region, both the tops of the waves and the hollows between them are covered over with nearly level layers of much newer rocks, of old alluvial age. Where the streams have cut down through these alluvial rocks, the older steep dipping rocks form ridges, and give to the smaller valleys the parallelism that has been already noticed. For a dozen or two dozen miles north of the Salt Range the dip of the older rocks, beginning with a steep dip, on the south, becomes quite gentle, and then nearly or quite level; so that the old alluvial rocks, if they rest upon them, are conformable to them, whereas further north these alone remain level, while the lower rocks have a steep dip, and the unconformability is striking. The axes of the saddles run south-westerly on the eastern edge of the region, westerly in the middle of it, then north-westerly and northerly, on the western edge; but in the north-western corner, south-westerly and then westerly. The dips are commonly quite steep, sometimes reversed as far as  $70^{\circ}$ , and seldom less than  $45^{\circ}$ , except along the northern side of the Salt Range near Doodna ( $6^{\circ}$ ), Hungooch ( $26^{\frac{1}{2}}^{\circ}$ ), Chinnoor and Saddealee, and at Aluggud ( $25^{\circ}$ ).

*b. Rock Beds.*—The following seems to be the section downward of the old alluvial rocks as exposed along the Sool River near Moorut:—

Concretionary lime rock or travertine	.	.	.	about 100 feet
Coarse brown pebble rock	.	.	.	" 3
Soft brown sand rock	.	.	.	" 30 "
Coarse brown pebble rock	.	.	.	" 2 "
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In all	.	.	,	135 feet
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In the banks of the Indus for a dozen miles above Muklud and as many below it a much greater thickness of these older alluvial rocks seems to be exposed, including several thick but not persistent layers of very coarse (6-inch) pebble rock, varying sometimes very rapidly from a thickness of 100 feet in one bed to three separate layers of six feet.

The following seems to be the section downward of the portion of the older rocks that contains all the oil found in the Punjab:—

Soft gray sand rock estimated by some writers as much as 10,000 feet at Aluggud more at any rate than	.	.	about 100 feet
Red and greenish gray clays, with a few layers of brown sand and pebble rock (Aluggud, Jaba, and whole northern side of western part of Salt Range)	.	.	" 700 "
Coarse (up to six-inch) pebble rock, perhaps sometimes wanting (Aluggud)	.	.	" 10 "
Brown sandy lime rock, with productus and other fossils; in some places becoming merely soft gray sand rock, with the oil of Aluggud brook (Aluggud)	.	.	" 40 "
Soft gray sand rock (Aluggud)	.	.	" 100 "
Brown and gray shales (Aluggud)	.	.	" 180 "
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Aluggud group	.	.	? 1,150

Gray sand rock, with a few layers of pebble rock, and near the bottom some dark red shales, and with gray shale; oil of Dooma, Hungooch, Chunoor, and probably Sadeenlee near the bottom (Jaba and northern slope of Salt Range)	about 700 feet.
Blue gray lime rock, with nummulites, echinoderms, and other fossils; oil of Chhotá Kotta and Burá Kutta (Jaba) near the top; and oil of Ruttá Otoor, Dulla, and Pannoba near the bottom	,, 1,100 "
Jaba group	? 1,500
Red sand rock and shales (the whole at Pannoba, the lower part at Gunda)	,, 500 feet.
Brown sand rock and shales, with nummulites, oil of Gunda, and perhaps Cheerpar (Gunda, Chhurut, Boraree)	,, 100 "
Gray lime rock, with nummulites and gray shales, with some red shales near the bottom; oil of Chhurut, Boraree, and perhaps Bussala and Loondeegar (Gunda, Chhurut, and Boraree)	,, 190 "
Red shales, salt (Gunda, Chhurut, Boraree), perhaps more than	,, 60 "
Gunda group	850
In all	3,800 ft.

As nummulites abound from the lime rock of the Gunda group up to the top of the lime rock of the Jaba group, all these rocks probably belong to the so-called nummulitic age, although the Gunda rocks seem to hold the place of rocks that in the Salt Range have commonly been assigned to a much older age. It should also be stated that the Gunda rocks may prove on more complete examination not to underlie the Jaba group, as here considered to be the case; but the absolute determination of this point was immaterial to the objects of the oil survey, and would have taken too much time for it to be on the whole desirable.

A like uncertainty exists in regard to the position of the lower 300 feet of the Aluggud group with reference to the Jaba group. The upper sand rock and clays (in all 800 feet) of the Aluggud group are undoubtedly the same that are found for many miles along the Salt Range at a distance of about a thousand feet above the Jaba lime rock; and the sand rock and shales of the bottom of the Aluggud group much resemble the sand rock and shales from 700 to 1,000 feet above the Jaba lime rock. The chief cause of doubt in the matter is the occurrence of the fossil productus, and perhaps other fossils as certain teribratulae and spiriferi in the Aluggud lime rock—fossils which are universally reckoned far older than nummulites, and have given rise to the belief that this rock was carboniferous. In case it be carboniferous, there is a wide gap below the red and greenish gray clays, where at least the whole Jaba group should be together with 350 feet of gray sand rock and shales above it (to be seen at Jaba), in all over 2,000 feet that would be quite missing at Aluggud, all thinned out and disappeared within a distance of 30 miles (from Jaba), and that would be almost incredible. There would also seem to be no rocks below the Jaba lime rock in the Salt Range, though so near, that would correspond in appearance to the lower rocks of the Aluggud group. Indeed, those rocks below the Jaba lime rock, although from their fossils they have hitherto been reckoned oolitic, carboniferous, or older in age, resemble rather the Gunda rocks (with some variations not to be wondered at in a distance of 75 miles); but the Gunda rocks are full of nummulites. It seems absolutely necessary to admit either that the productus and its accompanying fossils are found in rocks far newer than the carboniferous, or else that the nummulites are found in rock much older than the tertiary. Possibly it will turn out that both these admissions must be made, and that all these rocks belong to an age between the carboniferous and tertiary.

Doctor Fleming reports finding in what he calls carboniferous limestone (not the rock at Aluggud, but of like age with it in his opinion) ceratites and "fossils bearing a considerable resemblance to belemnites," both of later age

than the carboniferous. There is also found in the pebble rock just above the Jaba lime rock, and apparently quite conformable with it, pebbles of a pink or flesh-colored lime rock that answers to Doctor Fleming's description of some of the carboniferous lime rock of the Salt Range; and in these pebbles are found nummulites.

The thousand feet of greenish gray sand rock and shales above the Jaba lime rock (at Jaba), and the red and greenish gray clays above that (both at Jaba and Aluggud), and the gray sand rock (called by some writers 10,000 feet thick or more) above that, have all hitherto been reckoned as of Sivalik age, without, however, the evidence of fossils. To the positive determination of that point this survey had no occasion to devote any time, and has no light to throw upon it. It is, however, clear that the steeply dipping rocks found at Gunda, Chhurrut, and at some other points, although they have been called Sivalik, cannot be so, for they abound in nummulites, to say nothing of the reasons for believing them to be even older than the great nummulitic lime rock of Jaba. As the mistake has therefore been made of supposing the Gunda group to belong to the sand rocks above the red and greenish gray clays, it is quite possible, to say the least, that the thickness of these upper sand rocks may prove to be after all much less than the unusual one of 10,000 feet. On the northern side of the Salt Range near Dooma, south-west of Tullagung, the red and greenish gray clays, and the sand rocks over them, dip very gently (about 5°) northerly, and the dip grows more and more gently northward until it is nearly or quite level. At some point not yet determined, but probably south of Tullagung, the sand rocks pass below the pebble and the sand rocks of the older alluvium; and these last keep a nearly level dip throughout their extent northward, while the so-called Sivalik sand rocks probably share the steeper dip of the lower rocks that is clearly shown by the valleys just north of the Sohan, as well as by the course of the Sohan itself. The outcrop of these sand rocks, then, just north of the Salt Range, with a very gentle dip, cannot probably be more than some 15 miles wide at most, and their thickness so exposed can hardly be more than 3,000 feet. It is barely possible, however, that this exposure may not show the whole thickness.

It would seem, then, from the section that what (the Aluggud lime rock) has until now been thought to be below the Jaba lime rock is really above it, while what (the Gunda group) has been thought to be above the Jaba lime rock is really below it. This matter is, however, quite unimportant with reference to the oil lands; for it must be borne in mind that the oil-bearing beds found at different points in the section are only very locally so, commonly for a distance of only a few yards or scores of yards,—rarely as on the Aluggud brook, for 500 yards or more, or, as at Jaba, for half a mile or more. Beyond these narrow limits the same beds are often seen in their outcrops to be quite barren of oil, and in other cases the absence of any discovered spring is commonly proof enough (in a country so minutely explored as this has been by the natives) that the beds can yield no oil. Not only therefore is it necessary to study each place separately for itself, but it is quite needless to trace out thoroughly the outcrop of each of these beds with the hope of finding oil by borings here and there all along it, or with the idea of boring say from any point in the Jaba group down to the oil-bearing beds of the Gunda group. Such a random attack upon even a bed that is known to be oil-bearing at some one place, though it might possibly prove successful, would have in its favor scarcely one chance in a thousand million.

#### 4.—OIL, TAR AND ASPHALT.

*a. Mode of occurrence.*—The oil is in all cases in the Punjab of a dark green color when fresh, but turns black in drying or in becoming tar or asphalt; and the tar that melts in the sun from the asphalt is also black. At the Chhota Kutta and Burra Kutta (Jaba) main oil springs there is green oil to be seen that has freshly come from the rock, but it soon mixes with the black, partly dried tarry oil that surrounds it.

At Rutta Otoor, Dulla, Punnoba, Chhota Kutta, and Burra Kutta (Jaba), and partly at Aluggud, the oil (or asphalt) comes from the cracks in beds of

lime rock; in all other cases in the Punjab it oozes from sand rock or sandy shales, sometimes perhaps calcareous. In almost all cases the natural springs are at points where brooks cross the outcrop of the oil-bearing beds, and lay them bare; but the Gunda wells are in a little plain between the head of two brooks; the Aluggud oil comes partly from the face of a cliff high above the brook; and the Loondeegar asphalt is on a gently sloping hillside; not to speak of the trifling Cheerpar oil that comes from the roof of a small cave in the face of a cliff 70 feet above the plains.

In nearly all cases where liquid oil is found, it seems to flow with water from the rock, and in the springs is found floating upon it. In the Gunda boring No. 1, however, very little water is now found to come with the oil from the rock; and at Aluggud (where the so-called oil is, much of it, merely tar melted by the sun from a secondary or wash deposit of asphalt), although the tar is commonly found floating upon water in small holes in the bed of the brook, the two liquids did not come together from the rock. The water in this case is probably merely the common rain or spring water of the brook, protected from drying up by the layer of tar above it. The presence of some of the water in the other springs may be accounted for in the same way, and in some oil springs at certain seasons the presence of water may all be due to this cause.

The water that accompanies at least a part of the oil at the oil springs of Chhota Kutta and Burra Kutta (Jaba) is highly sulphureous, and it is possible that sulphur water may likewise be found at some of the other oil springs (more particularly at Punnoba), but the presence of sulphur is not noticeable in them.

The brook water near the oil springs of Punnoba is strongly salt (in the dry season), and there are traces of salt near the Chhurrut and Boraree oil wells, as also near the Chhota Kutta and Burra Kutta (Jaba) oil springs; but near the other oil springs very little or no salt is to be found.

Perhaps no point regarding rock oil is more commonly or more widely misunderstood than its mode of occurrence. Most men seem to be possessed with the idea that the oil has come to the place where it is found from a great depth below. Many believe that the oil is flowing hither or thither through vast fissures in the deep rocks, or fills large cavities or reservoirs in the bowels of the earth, whence it issues to the surface by small cracks at the springs above, and that you only need to bore deep enough there to tap these reservoirs, and get an indefinitely large supply. Even some professed geologists imagine that the oil has come to the rocks in which it is now found from the natural distillation of bituminous shales or coal below it. What is more strange is, that really eminent men of science have maintained that the oil is formed by the chemical reactions of certain purely mineral bodies in the interior of the earth, basing their views upon the established fact that similar products may be made by chemists from mineral bodies which may be believed to exist in the interior of the earth and also on the well-known presence of oil near mud volcanoes. How much simpler and more natural than any of these far-fetched opinions is the now well-established fact, that the oil was first formed and has always remained in the same rock beds from which it now issues, and that it first came from the slow decomposition of plants and animals buried in the rock as it formed, just as marsh gas (kindred with oily) is formed by the slow decay of vegetable matter at the bottom of ponds. Plants that grow on the ground or in the air, having woody fibre, would in case of burial and slow decomposition leave bituminous coal, which, under favourable circumstances, might lose its bituminous or oily part without losing the woody part, and would then become anthracite. But plants that grow in the water (such, for example, as sea weeds of all kinds down to the most delicate and microscopic), having no woody fibre, leave in such a case only oil or bitumen (including gas), and a like result would come from the slow decomposition of the flesh of animals, which in some cases might have been buried, in vast quantities, though seldom probably comparable to the accumulations of weeds that are found even now-a-days in the sea. It is not, however, to be supposed that the plants or animals that gave rise to the oil in a thick bed of rock were all buried at once; the burial was in most cases probably very gradual, going on from year to year as the rock itself was formed.

by the gradual dropping of sand or mud to the bottom of the sea. The frequent presence of salt in beds of rock near the oil is therefore not to be wondered at, for they may likewise have been formed, not merely at the bottom of salt sea water, and therefore naturally salt themselves, but may have been formed in a shallow bay or temporarily closed inlet, where the sun's heat so dried up the water as to leave layers even of crystallised salt. The presence of sulphur with the oil is of a piece with its presence in coal or other organic remains.

Mud volcanoes owe their eruptions merely to the oil gases that are buried under a covering of mud, and push their way out from time to time. The cases of fissures filled with oil that have seemed to some the channels by which the oil rose to the surface from the lowermost depths of the earth, and have seemed to others the vast reservoirs from which the springs above are supplied, are much rarer and more insignificant in size than is commonly thought. Of the thousands of oil wells in the world, scarcely a dozen (if so many) have each yielded a hundred thousand barrels of oil from such a source. Yet a hundred thousand barrels would not fill a fissure 200 feet long by 150 feet deep and half a foot wide; and it is more likely that a fissure of that capacity would be longer or deeper, and only an inch or two wide, and still more likely that such a yield would come from a network of much narrower cracks or seats in the rock. It is unlikely that some open fissures would extend to any great depth where the beds of hard rock are thin and separated at short distances by soft shales or clays (as is the case, for example, in the Gunda group of rocks.) A deep fissure, extending far below the oil-bearing bed, would be very sure to cross rocks containing water, as all porous rocks do below the drainage level of the region, and below the effects of the sun's drying power. This water would of course tend to fill the fissure, and the oil would float upon it; so that the hope of striking such an oil-field cavity at a considerable depth below the oil-bearing bed is not justifiable.

It has been maintained by some that a given oil-bearing bed yields most abundantly at the point where it forms the top of a saddle, because the oil is pushed upward through the pores and fissures of the rock by the water below, and because too the fissures would be most numerous at this point. Certain oil regions have been pointed to as confirming this view, by the fact that most of their wells are near the top of a saddle of the rocks. The real cause of this fact seems, however, to be merely that at a greater distance from the top of the saddle the oil-bearing bed is at a greater depth from the surface, and that boring into it is therefore less practicable. However true it may be that water in a fissure would have the oil floating upon it, and so push it upward until some obstruction was met, it is highly improbable that such pressure would cause the oil to pass through the pores of the rock, and give up its place in them to the water. Indeed, if such action took place even slowly, the steeply dipping rocks of the Punjab would no doubt, ages ago, have had all their oil thoroughly pushed out at their outcrops by the water rising from below.

As the oil was forced from materials gathered in the rock when this was lying flat at the bottom of a sea, it is clear that the position or shape of the oil-yielding part of the bed can have in general no reference in the present shape of the ground, hills or valleys. But it is possible that the part of the oil-bearing bed, which now lies high above the drainage level, may have lost some of its oil by drainage and by the drying effect of atmospheric influences; and this would account for the fact that almost all the Punjab oil springs are found just at the place where a brook crosses the outcrop of the bed, that is, at the lowest drainage level. The wells at Gunda even, which seems an exception, may be at the lowest point where the oil-bearing part of the bed crops out. Still, such a draining away and drying up of the oil must be extremely slow, and it is very likely that it has deprived of most of its oil only a narrow strip along the outcrop on the hillsides.

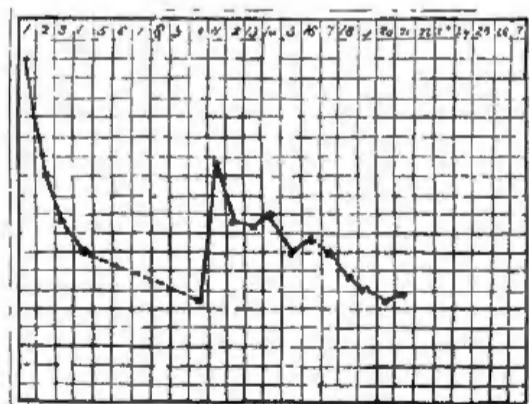
The outline of the oil-bearing part of the rock bed below the outcrop has of course no reference either to the present shape of the surface or dip of the rocks, and can only be determined by numerous borings or trial pits. As the outline depends on the shape of the original mass of materials (plants or ani-

mals) that formed it, and that upon the currents of the sea or winds, of the storms, or barriers of the shore, or depth of the bottom, it would not be possible to infer the shape of one deposit from the shape of another at a distance, especially if in a different bed of rock of a different age, as is almost always the case in the Punjab. The shape (in plan) of the original mass of materials for the oil in still-water, leaving the influence of the shore and bottom out of account, would probably be circular, but a current in the water or a storm would tend to lengthen this shape to an ellipse, and the shore or bottom might give this an *ess* shape, or otherwise irregular shape.

The length of the deposit along the outcrop may be known, at least roughly (for example, as great or little) by the absence of oil springs or noticeable traces of oil along it, even where well exposed and at low points of drainage. For this reason among others it is desirable to study out more or less exactly the course of the outcrop near a spring of oil. Whatever shape the original mass of oil-forming materials had, the present line of outcrop would plainly be as likely to cross it in one part as in another; the portion on one side of the line is that which has been swept away by the rains and rivers that have scooped out the hollows in the present surface; the other portion still lies underground. As the outcrop line is as likely to pass on one side of the centre of the original oil-bearing part of the bed as on the other, the width of the underground part at right angles with the outcrop may be taken as probably something like the half of the length of the outcrop.

*b. Yield.*—The chief yield of oil has been at the Gunda wells, where boring No. 1 and the dug well in which it is, have yielded all the oil, with perhaps a trifling exception. From the 8th of April 1870 to the 22nd October 1870, the whole yield here has been about 1,963 gallons, or an average of ten gallons a day; but from the 29th June to 1st August, 33 days, no oil was taken owing to the caving in of the well; and in general none was taken on Sundays, and three other days were lost, making the average for the days that oil was taken,  $14\frac{1}{2}$  gallons a day. The yield at the beginning of boring work (8th April) was about five gallons a day; on the 28th of May the yield was about fifty gallons, the greatest yield of any one day. From that time until the caving in the decrease in the daily yield was almost continuous, to about ten gallons a day. On the 1st of August the yield was again 10 gallons a day, but on the 10th of August a fixed pump had been put into the bore hole, and the yield rose to 30 gallons a day. From that time until the 22nd of October the daily yield has again gone with some fluctuations down to ten gallons a day. The yield in gallons in each full week of gathering the oil from 30th May to 22nd October was about 180, 120, 97, 80 (55, 128, 98), 94, 99, 79, 88, 79, 66, 58, 59; in the weeks "55, 128, 98," one day was lost from the work each week, besides Sunday.

A drawing to represent these variations of yield shows that the yield at the end of this year (1870) will probably be about 35 gallons a week, and that by the middle of next year it will be hardly a gallon a day, and that the whole



future yield will be about a thousand gallons, or one-half of the past yield since the boring was begun, making about 3,000 gallons in all that the well will have yielded. These results are a good illustration of the character of the yield of

oil wells in general greatest at first, then rapidly diminishing; after that diminishing more and more slowly until the yield finally becomes too small to pay for pumping. The curve representing this decrease is clearly a parabola.

The yield at all the other places is from natural springs. At the Chhota Kutta (Jaba) springs the oil yield is perhaps three quarts a day; at the Punnoba springs two quarts a day; at the Burra Kutta (Jaba) springs three pints a day; at the Rutta Otoor spring half a pint a day; at the Bussala springs one gill a day; at the Loondeegar, Chhurrut, and Boraree places a mere trace;—at all the rest no oil proper at all, making the whole oil yield of the springs perhaps seven quarts a day. Of asphalt there is at Loondeegar perhaps 1,000 cubic yards, or 1,500 tons; at Aluggud brook 350 cubic yards, or 550 tons; at Gunda 15 cubic yards, or 19 tons; at Chhurrut 15 cubic yards, or 19 tons; at Boraree brook six cubic yards, or seven and a half tons; at Dooma one-half cubic yard, or two tons; at Dulla half a cubic yard, or five-eighths of a ton; at the other places none at all to speak of, making in all perhaps 1,388 cubic yards, or 2,098 tons, capable at a rough guess of yielding as much gas as 700 tons of crude oil, that is, something more than 15 million cubic feet. Of rock tar there is at the Aluggud brook perhaps 100 gallons; at Dulla, Sadealee, Chinnoor, Hungooch, and Dooma scarcely more than mere traces; and at the other places none at all to speak of.

*c. Outcrop.*—The Gunda group of rocks seems to crop out all along the southern edge of the Choor Hills, and most likely also on the northern edge, and further east to the southern edge of the hills at Rutta Otoor. They probably also appear here and there in the whole region between the Choor Hills and Khairee Moorut, and on the south-eastern side of the Khairee Moorut as far south as the Sohan River. South of this river, as well as in most of the country north of it, they seem to be covered up by rocks of older alluvial age, and only to reappear on the southern edge of the Salt Range.

The Jaba lime rock ("nummulitic limestone of the Salt Range") appears not only all along the Salt Range, but is probably the material of the Khairee Moorut, Choor Hills (including the hills of the Punnoba), and the hills about Rutta Otoor.

The Jaba sand rock (just above the lime rock) crops out all along the northern slope of the Salt Range, and perhaps is also to be found among the steep dipping rocks north of the Sohan and near Khooshialgurh, on the western side of the Indus. The upper part of this sand rock, just below the red and greenish gray clays, seems to be the same as the oil-bearing rocks of the Aluggud brook also skirting with its outcrop the western edge of the valley.

*d. Working.*—It would be hopeless, as already hinted, to bore or dig for oil along these outcrops, except very near to the places where oil springs, or at least asphalt deposits, are known. Indeed, the first borings should be as near as may be to these, not more than a few yards distant; and if they should prove successful, the oil-bearing bed may be tested in the same way to a greater and greater distance. As the bed near the surface may have been somewhat affected by ages of natural drainage and of atmospheric influences, it is desirable to test it at some depth, and to bore rather to the dip from the springs than along the outcrop, although this is not to be altogether neglected when the springs give encouragement. Still in boring to the dip it would not be well to make the first boring more than from fifty to a hundred feet deep, for the expense of such a shallow boring is less, and so is also the risk of striking the bed outside of the oil-bearing part of it. Other borings may afterwards be made still further to the dip, as well as to the right and left on the same level, that is, along the strike. It is commonly easy to measure the dip near the spring with the exactness enough to fix upon the place of a boring that would pass through the bed at a depth of from fifty to a hundred feet. After one or more borings are made, the dip will be still better known from them, so as to be a guide for other borings.

As the specific gravity of porous sand rock is about one-fifth less than that of quartz, it is plain that about one-fifth of the bulk of the rock is taken up by

pores or empty spaces between the grains of sand. One cubic foot of oil, then, say eight gallons, would fill the pores of five cubic feet of such sand rock, and 3,000 gallons (the whole past and future yield of Gunda boring, No. 1) would in the same way saturate in round numbers 2,000 cubic feet of rock. Capillary attraction, however, would prevent more than perhaps a tenth of the whole amount of oil in the rock from draining into a boring, but this proportion would depend on the coarseness of the rock. Only that part of the rock next the boring would, however, be fully drained at first, while that at the outer limits of drainage would be drained infinitely little; the average amount of drainage then would be perhaps only one-twentieth of what is in the rock. The 3,000 gallons then would drain from twenty times 2,000 cubic feet, or say 40,000 cubic feet, or 2,000 square feet of a bed (like that at Gunda), 20 feet thick, that is, a circle about 50 feet in diameter. According to this, the wells should not be nearer than 50 feet apart upon the oil-bearing bed; but something more might be allowed for the possibility of draining to a greater distance by reason of exceptional seams in the rock here and there; and if the rock seemed on trial to be rich in oil, intermediate wells might finally be placed half way between those of the first set, so as to drain more thoroughly the less perfectly drained part of the rock. After a season of rest, the better drained portions of the rock would tend to fill up partially again from the less drained portions.

It would not be well then to put the borings, at least at first, nearer to each other than some 50 or 100 feet, because not only does each bore-hole drain the rock more or less to some 25 feet or more all around it, but the exploration of the limit and yield of the oil-bearing part of the bed will go on more rapidly if the holes are not put too close together. It is better to bore than to dig shafts through the rock, partly because it is cheaper, especially for a mere exploratory test of the bed, and partly because the very explosive gases given out by the oil render the digging of a shaft of any depth highly dangerous, and the gases are likewise very dangerous to the life of the laborers, who breathe them in large quantity. Even artificial ventilation of such pits might well prove insufficient to remove these dangers.

As to the yield of future borings, it is clear from what has already been said of the nature of oil deposits, that it must be quite impossible to make anything better than the very roughest guess. The bore-hole may hit upon a portion of the deposit where the rock is much fissured or coarsely porous, so as to give a very large yield, or it may fall quite outside of the deposit. The yield of a natural spring, however, gives some little clue as to whether the yield of borings is likely to be great or little, although the spring may in running for ages have now nearly run dry, that is, drained all the oil from the adjoining rock, or the small cracks in the rock through which the spring is fed may have become so clogged as to allow only a very small yield compared with that of a bore-hole. As the bore-hole passes through the whole thickness of the oil-bearing bed, the yield of course is likely to be greater (other things being equal) the thicker the bed is. The oil-bearing bed at Chhota Kutta and Burra Kutta (Jaba) seems from the place of the different springs to be about 100 feet thick; the bed at the Aluggud brook seems to yield oil through a thickness of some 50 feet; that at Punnoba 20 feet; at Gunda 20 feet; at Rutta Otoor 15 feet; at the Bussala River 12 feet.

The order in which the different places deserve to be tried by boring, taking the oil-yielding merits of each into consideration, is this:—Gunda, Chhota Kutta, Aluggud, Punnoba, Burra Kutta, Rutta Otoor, Bussala, Loondeegar (at the asphalt). The other places do not deserve trial at all, except possibly Chhurrut and Boraree, which however derive their chief importance from the unsuccessful trials made there last year by Mr. Fenner.

But considering also the distance of each place from the points to which the oil is destined, and from the head-quarters of superintendence, the order of trial would be somewhat different. If the oil be destined to the Rawalpindi gas work alone, the trial would perhaps best be made in this order,—Gunda, Rutta Otoor, Chhota Kutta, Burra Kutta, Bussala, Punnoba, Aluggud, Loondeegar.

The boring No. 1 at Gunda yielded for six months an average of about

11 gallons a day. It would seem, then, that for the supply of the Rawalpindi gas works (100 gallons a day), about nine such wells would be needed at a time. But as boring No. 1 will probably go on yielding something (a trifle at least) for 9 or 12 months longer, making its future yield about 1,000 gallons more, or 3,000 in all in the course of 18 months, its whole yield will probably be about one-eighteenth of the whole amount needed for the gas works in the 18 months. It would need, then, but one such new well every month to keep up a supply of 100 gallons a day; but that supply would not begin until a number of wells were at work—indeed 18 of them, if they were sunk only so fast. But if the oil be allowed to accumulate at first, without being used, to the amount of about 4,000 gallons, or for about the four first months of the yield of such a series of wells, then the series would yield enough to keep up the supply until the full number of wells come to yielding altogether. But as the very possible failure of some attempted wells and other delays must be provided against, a stock of oil should also besides be on hand before beginning its use, enough to last say three months; or else, what is about the same thing, three wells of the afore-mentioned whole yield of 3,000 gallons each should have been bored before reckoning the series as begun, which, after storing up 4,000 gallons, is to yield regularly the desired supply. If then the boring of the wells should go on regularly once a month, and each should yield as much as the first one is yielding, it would take four months after the finishing of the fourth well (that is, until the eighth well has been bored) before it would be at all safe to begin the use of the oil—in other words, before an uninterrupted supply of 100 gallons a day could be counted upon with any reasonable likelihood.

It seems quite likely (to make a very rough guess) that the Chhota Kutta oil lands would yield 30 such wells; the Burra Kutta 20; the Ainggud 20; the Punnoha 20; the Gunda 5, and the Ratta Otoor, Bussala, and Loondégar, all together 5, making 100 in all. Yet so uncertain is the matter that it might well turn out that Chhota Kutta alone would yield more than 100. And it would not be very astonishing if a single well here should yield 100 times as much as the Gunda boring No. 1, that has been taken as the standard; for although the limits of each little oil district are very narrow, the yield of single wells within those limits might be very large since a well draws its supply from so short a distance around it. Still the rough guess just given does not seem wild either in overrating or in underrating the prospects of the places.

A supply of 100 gallons of oil a day may then be counted on with some likelihood for 100 months, or some eight years. Although the supply may well prove to last much longer, it may also prove to be much less; and uncertain and probably small as it is, it would hardly be worth while to put up gas works for its use. As, however, the gas works have already been put up, it may on the whole (rather than remove them to another place where gas material is more abundant) be best to make the needful borings, and use the oil while it lasts. When the railroad reaches Rawalpindi, other gas material may perhaps be got from a distance.

The asphalt seems to be enough in quantity to supply as much gas as a 100 gallons of oil a day for three or four years, lengthening out the term of the gas works to 12 years. To use the asphalt alone, the present retorts of the works would probably be too small, but it is quite likely that the asphalt could be dissolved again in a small quantity of the rock oil, and so used in combination with it in the present retorts. At the same time the pebble and sand could be separated from the asphalt after it has been reduced to the liquid form by dissolving in the oil.

As the oil all belongs to the class of heavy oils, it would be (like Rangoon oil) especially well suited for lubricating purposes; and it may well be that its most profitable use will be in that way, particularly after the railroad is finished to Rawalpindi.

#### 5.—SHIPMENT.

The Ratta Otoor oil spring is 13 miles by road from Rawalpindi, the first mile only a bridle path, the rest passable for carts, and eight miles of it a